

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

OCTOBER 8 1960

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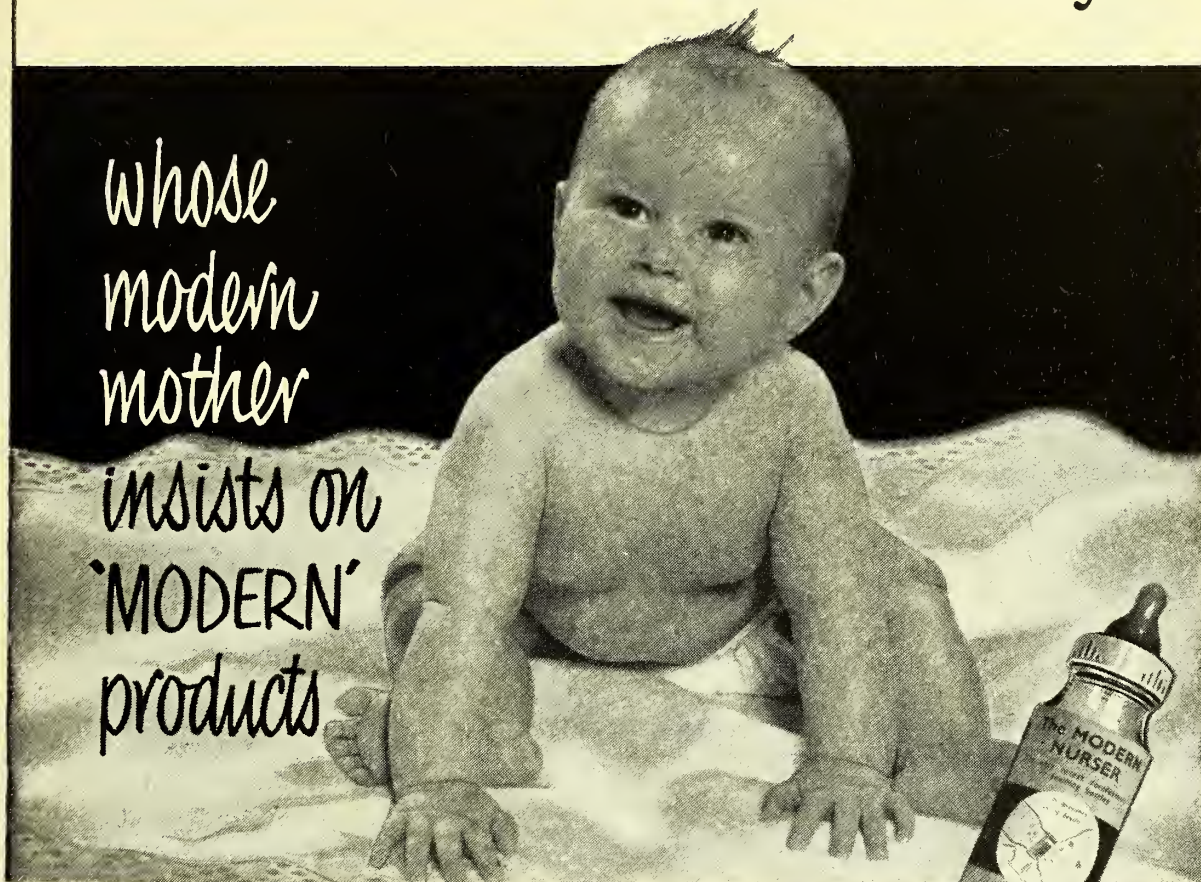
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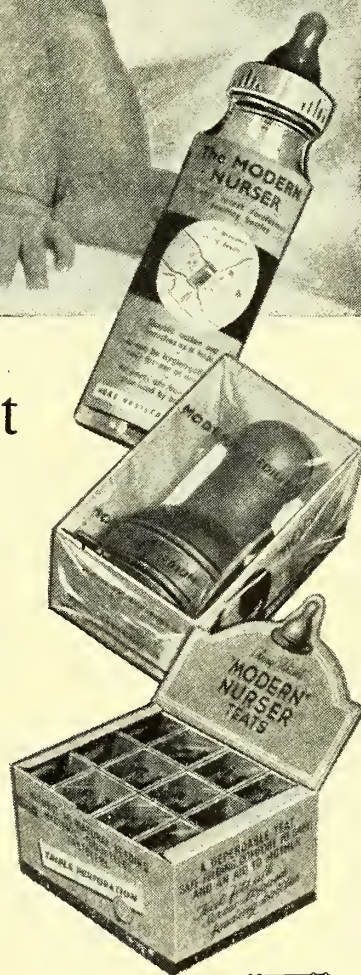
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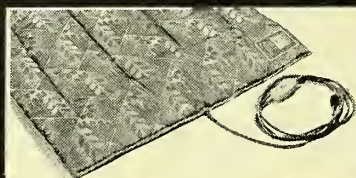
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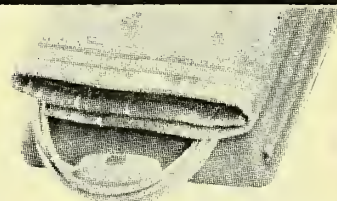
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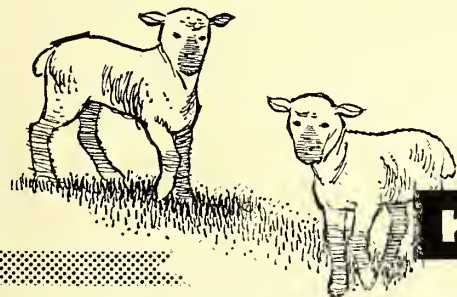
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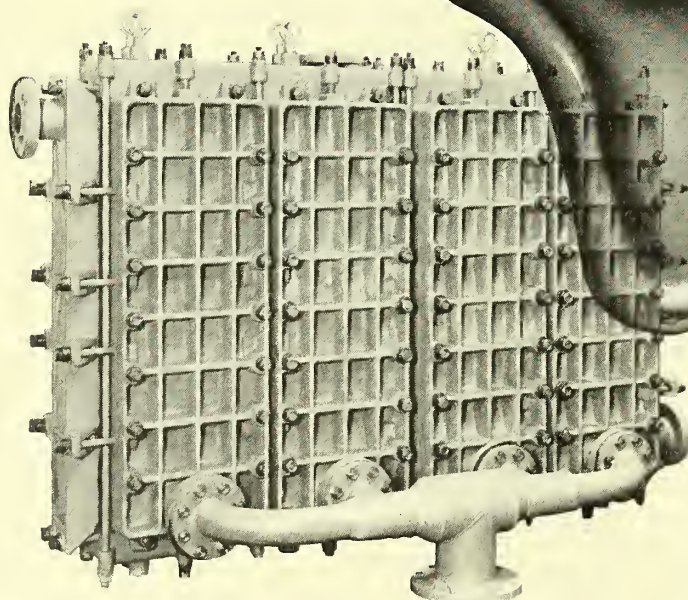
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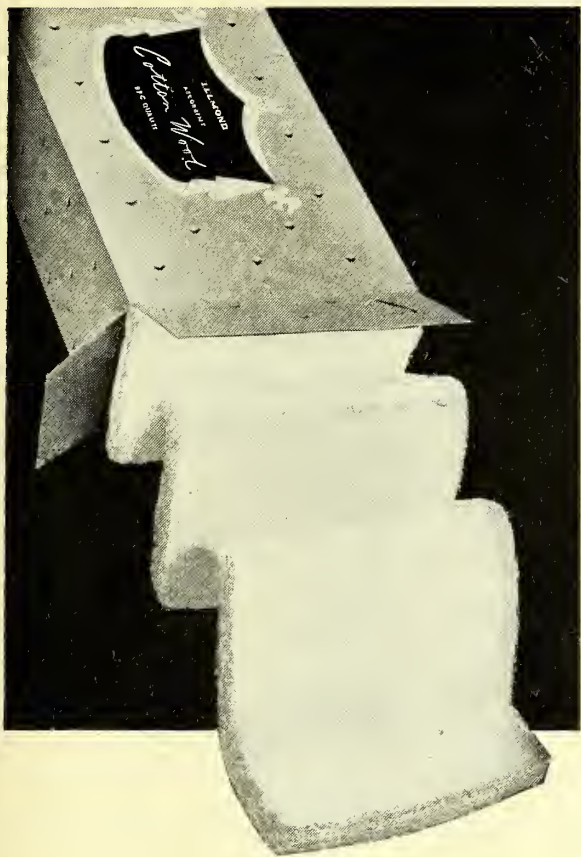
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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 174

October 8, 1960

No. 4208

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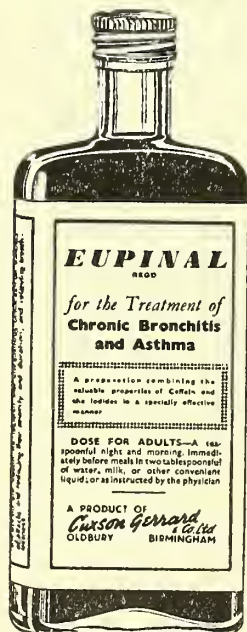
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4 ozs. TRADE: 28/- + 7/- P.T. Doz. Retail 4/2 each.

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The CHEMIST AND DRUGGIST

Volume 174

OCTOBER 8, 1960

No. 4208

Retail Price Maintenance

TRADE CHAMBER DISCUSSION AT BRIGHTON

THE case for retail price maintenance was put to delegates at the National Chamber of Trade autumn conference at Brighton, on October 4, by Mr. F. A. Price (economic adviser to Electrical and Musical Industries, Ltd.).

After attempting to clear away many of the "bogies" frightening to those who sought to examine the subject, Mr. Price contended that much of the material used by those who argued against retail price maintenance was founded on wrongly based conceptions that would not stand close inspection. In America, where the subject had been fully investigated, it had been found that gross margins did not tend to go down when retail price maintenance was abolished and there was no evidence to show that prices were too high when retail price maintenance was in force. In fact, Mr. Price argued, where uniformity of pricing was in operation there was evidence of extensive falls and rises in price and turnover caused by "poaching" by price cutters. On the subject of poaching, Mr. Price said it was argued that by fixing prices a manufacturer was curbing the enterprise of the retailer who was more efficient, and in consequence, able to sell to the public at a lower price. If that were allowed it would put the specialist shop in a difficult position and could well lead to fewer of the manufacturers' goods being sold. Retail price maintenance was not aimed at keeping the efficient man in business: it was designed to give the manufacturer the right of control over the distribution of his goods. Retail price maintenance did not restrict developments in retailing. It would not last if economic conditions were against it—but there was no point in actually legislating for the system's breakdown. Of restriction of enterprise, Mr. Price said there was a range of private brands that gave the shopkeeper the chance of "playing about" with prices. Retail price maintenance did not restrict the consumer's choice; there were plenty of goods of all kinds which, though price controlled in some cases, were in fierce competition for the customer's money. Mr. Price maintained that if price maintenance in its present form were abolished, which he thought would be the "height of stupidity," there would be other forms waiting to take its place. Manufacturers should retain their right; he pointed out that it was no better and no worse than the forms of price maintenance exercised by the legal and other professions.

Import Duties

TEMPORARY EXEMPTION ORDERS

THE Treasury has made the Import Duties (Temporary Exemptions) (No. 9) Order, 1960, (S.I. No. 1762) which became effective on October 1. The first schedule to the Order provides for the exemption from import duty until October 1, 1961 (except where some other date is shown) of certain goods (mainly chemicals) at present liable to import duty. The second schedule to the Order provides for the extension until October 1, 1961 (except where some other date is shown) of a large number of temporary exemptions from import duty (mainly of chemicals) which would otherwise have expired on September 30. Some of the descriptions of goods of which the existing exemptions are renewed by this Schedule have been revised. In the third schedule to the Order the present and revised descriptions are shown. As from October 1, it is the revised description which will determine the scope of the exemptions.—The Import Duties (Temporary Exemptions) (No. 10) Order, 1960 (published as S.I. No. 1763) consolidates, as at October 1, all temporary exemptions from import duty under the Import Duties Act, 1958 (including those conferred by the Import Duties (Temporary Exemptions) (No. 9) Order, 1960). Copies of the Orders are available from H.M. Stationery Office.

Technical Teachers

GOVERNING BODY OF STAFF COLLEGE

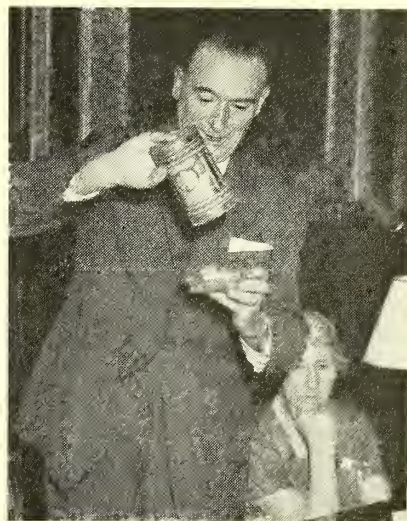
THE Minister of Education (Sir David Eccles) announced on September 27 the names of the first governors of the proposed staff college for technical teachers. Sir Alexander Fleck, K.B.E., F.R.S. (a former chairman, Imperial Chemical Industries, Ltd.) is to be the chairman of the governing body which includes, along with representatives of both sides of industry, representatives of local education authorities, teachers and universities. The Secretary of State for Scotland has appointed one nominee and two other members also come from Scotland. Among the members are Sir David Anderson, Ph.D.,

A.R.C.S.T., F.R.S.E., M.I.Mech.E. (late principal, Royal College of Science and Technology, Glasgow); Mr. S. Arrell (principal, Esk Valley College, Midlothian); Dr. R. W. Bolland, B.Sc., Ph.D., F.R.I.C. (head of the department of chemistry and biology, Bristol College of Technology); Professor D. G. Christopherson, F.R.S., O.B.E., D.Phil., Ph.D., A.M.I.C.E., M.I.Mech.E. (warden, Durham College); Dr. O. G. Pickard, B.Sc., M.Com., Ph.D., F.O.M.A. (principal, Ealing Technical College); Dr. J. S. Tait, Ph.D., B.Sc., A.R.T.C., M.I.E.E., M.I.Mech.E. (principal, Northampton College of Advanced Technology, London); Mr. C. A. Thompson, B.Sc., Dip.Ed. (principal, Brooklyn Technical College, Birmingham). The Minister has appointed Mr. C. R. English (chief inspector for technical education) as assessor to the governing body.

Drug Addiction

UNITED KINGDOM REPORT, 1959

ALTHOUGH there is no system for the compulsory registration of addicts in the United Kingdom the Government's latest report to the United Nations on the work of the International Treaties on Narcotic Drugs reveals that there were 454 known addicts, an increase of twelve from the 1958 figure. During 1959, 130 new addicts were listed by the Home Office, of whom thirteen were



STILL GOOD AFTER THIRTY YEARS: Mr. H. C. H. Graves (chairman and managing director of Vitamins, Ltd.), opens a thirty-year-old tin of Bemax at the company's annual conference held at Oxford, September 21-23. The contents were found to be in good condition. Mr. Graves tasted some during dinner.

recidivists. Seventy-seven addicts were cured, forty died and one "disappeared" during the year. The great majority of cases of addiction (344) arose in the course of treatment of an illness. Sixty-eight addicts belonged to the medical or professional or allied groups. None of the known addicts was under twenty years of age, fifty were under thirty-four, ninety-two under fifty and 278 were over fifty. In thirty-four cases the age was not known. In the report the Home Office have classified the addicts according to the drug of addiction. One hundred and seventy-two addicts used morphine, ninety-seven pethidine, forty diacetylmorphine, forty methadone, twenty-one phenadoxone, eight levorphanol, five cocaine, two hydromorphone, one hydrocodone, and one dextromoramide. A number of addicts used two or more drugs, nine were dependent on morphine and methadone; seven on morphine and cocaine, seven on morphine and pethidine, eighteen on diacetylmorphine and cocaine, four on diacetylmorphine and pethidine and four on pethidine and methadone. The report states that illicit traffic in narcotic drugs in the United Kingdom showed no significant change in 1959. Seizures of opium and cannabis continued to be made by Customs authorities but there was no evidence to suggest that manufactured drugs were illicitly produced in the United Kingdom. Twenty-six persons were convicted of offences involving manufactured drugs, of whom twenty-three were convicted of unlawfully procuring or possessing manufactured drugs, most of them being addicts who had obtained drugs by stealing, by forged prescriptions, or by getting supplies from more than one doctor at the same time; the remainder were convicted of failing to keep drugs in a locked receptacle or to maintain appropriate records. Those convicted were mostly British subjects of European origin. The following drugs were manufactured during 1959 for domestic needs or export:—Cannabis tinctures, cocaine, codeine, diacetylmorphine, diethylthambutene, dihydrocodeine, dipipanone, ethylmorphine, hydrocodone, medicinal opium, methadone, morphine, oxycodone, pethidine, phenadoxone, pholcodine, thebacon (acetyldihydrocodeinone) and thebaine.

Weed Research

A NEW JOURNAL

ARISING from a meeting of the International Research Group on Weed Control at Oxford, earlier this year, a new publication, *The Journal of Weed Research* is to appear in January 1961. The purpose of the meeting at Oxford was to consider the future of the Group as well as to discuss certain specific weed problems. The meeting agreed that co-operation between European weed research workers was desirable, but that a minimum of central organisation was necessary. In that respect, the idea of founding a European Weed Research Society was rejected, but the creation of a European Weed Research Council was approved. The Council was elected with Professor B. Rademacher, Germany,

as *President*, Dr. R. Longchamp, France, *Vice-president*, Dr. W. van der Zweep, Netherlands, *Secretary-Treasurer*, Mr. J. D. Fryer, England, *Editor*. The Council is completed by one member from each of the interested European countries. The headquarters of the new Council are at Wageningen, Netherlands. The interim council of the Group recommended two ways in which co-operation between workers could be fostered. The first was the formation of small working groups on specific aspects of weed control; and the second the foundation of a new journal devoted to the publication of studies on weeds and their control. Such a publication would gather together papers hitherto widely separated in literature. The newly formed European Weed Research Council met during the Conference and decided that it would support groups of specialists in the formation of committees established to study specific and well-defined problems. It is necessary for incipient committees to prove both enthusiasm and need for a particular study before the council will sanction the affiliation. The following committees are officially affiliated: the committee for *Avena fatua* (and related species), the committee for *Pteridium aquilinum* and the committee for the study of experimental methods. The general policy of the new journal will be the responsibility of the editor, but papers will be accepted if written in English, French or German provided an adequate summary is presented in the other two languages.

Not Poisoned but Cheated

ANALYST'S REPORT ACCUSES TELEVISION

IN a recently published report, Leicester city analyst put forward the view that, because of television advertising, many people buy drugs they can ill afford and do not really need. Drugs now sold in Britain are stated to be of a high standard, but "the public are not so much poisoned as cheated," ordinary people being unable to verify the claims of high-pressure publicity. "It is the weak trait in human nature that most of us think we can keep the years at bay and preserve an attractive front to the world long after we have definitely passed the optimum. And it is the obsessive quest for strength and virility by the men and youths, and of beauty by the women, that is at the bottom of much of this trade." The law at present is declared unsatisfactory. Manufacturers, and particularly salesmen, are not slow to see "the chinks in our armour" and to exploit them. "Education of the people is the only real solution."

Nielsen Drug Index

INCREASED TURNOVER FIGURES

ACCORDING to the Nielsen drug index issued by A. C. Nielsen Co., Ltd., Oxford, the average weekly cash sales in retail pharmacies on July 1 were:—Multiples, £352; large independents, £287; medium independents, £156, and small independents £85. Compared with the corresponding figures for 1959 the increased percentage changes

were:—Multiples 13.6, large independents 8.5, medium independents 12.4 and small independents 11.8. During May the multiple shops dispensed 32.5 per cent. of the National Health Service prescriptions, each shop dealing with an average of 1,632 prescriptions per month, the respective figures for the independent pharmacists being 67.5 per cent. and 1,111 prescriptions. N.H.S. dispensing represented 27.4 per cent. of the total turnover of multiple organisations and 34.6 per cent. of the total of the independent pharmacies. The respective figures for the same period during the previous year being 26.5 and 35 per cent. Changes have been made in the compilation of the Nielsen drug index to ensure its greater accuracy following the publication of up-to-date information in the Government census of distribution.

Collection of Medicines

"DON'T BAN CHILDREN"

THE Scottish Association of Executive Councils of the National Health Service does not want legislative action to control the delivery of drugs to patients. At the annual conference at Turnberry recently only four votes were cast for an Ayrshire motion declaring that "This conference expresses concern regarding the facility with which child messengers may obtain possession from chemists of medicine both dangerous in small quantities and potentially dangerous if taken in larger quantities. Bearing in mind the restrictions already placed on doctors, dentists and chemists in relation to the obtaining and supply of drugs, it urges that legislative provision be made for control of delivery of drugs to patients."

IRISH NEWS

THE NORTH

Health Board

PRESCRIBING OF AMPHETAMINE DRUGS

IT was reported at the September meeting of the Northern Ireland General Health Services Board that when the Board went into committee at its August meeting Dr. S. E. Browne had stated that he was of the opinion that generally speaking too many drugs like Dexedrine were being prescribed and the Board should consider their responsibilities in the matter. Mr. W. H. Boyd had said that few medical practitioners now prescribed Dexedrine and the prescribing of similar drugs had decreased enormously in recent months. After discussion the Board had agreed that the matter be referred to the Medical Advisory Committee. That committee reported at the September meeting that the medical adviser had reminded the members of action already taken by the Board in stressing the dangers of prescribing amphetamine drugs and the committee had agreed that no further action could usefully be taken by the Board at present. Accounts for pharmaceutical services totalling £231,739 were submitted and were approved by the Board.

IRISH BREVITIES**THE REPUBLIC**

THE annual meeting of the Pharmaceutical Society of Ireland is being held at 18 Shrewsbury Road, Ballsbridge, Dublin, at 7.30 p.m. on October 10.

THE annual meeting of the Irish Hospital Pharmacists' Association is being held at Grosvenor hotel, Westland Row, Dublin, at 4 p.m. on October 16.

THE following candidates passed the 1960 Pre-registration examination of the Pharmaceutical Society of Ireland:—T. B. Brown; W. J. Butler; Philomena A. Gallagher; T. Kelly; J. J. E. Kingston; T. F. Leahy; J. B. O'Byrne; D. A. McGoey; Margaret M. Plunkett.

ALDERMAN P. A. Brady, T.D. (a member of the Council of the Pharmaceutical Society of Ireland) was a member of an Irish Parliamentary delegation which recently paid an eleven-day visit to West Germany. The party was received by the Chancellor (Dr. Adenauer). Their visit was at the invitation of the West German Bundestag.

NEWS IN BRIEF

MR. K. H. Clucas has been appointed principal private secretary to the Minister of Labour (Mr. John Hare).

A NEW class of membership (associate membership) has been approved by the British Laboratory Ware Association.

IN the final examination for the degree of B.Sc. in pharmacy at Glasgow University, S. N. Islam was successful in pharmacognosy I.

FIFTEEN cine cameras were stolen by smash-and-grab thieves from the pharmacy of Mr. D. Livesey, F.P.S., 93 Princes Street, Hull, Yorks, on September 28.

THE Guatemalan ambassador to Belgium and three other men were arrested in New York on October 3 on charges of attempting to smuggle 116 lb. of heroin (worth about \$4 millions on the illegal market) in the United States.

STOCK valued at about £2,000 was destroyed and considerable damage was done to the premises of Donington & Co., Ltd., wholesale chemists, Abbey Path, Spalding, Lincs, by a fire on September 20. But the company reopened for business with full stocks again on September 27.

AT the invitation of the Board of Trade, a mission of prominent Peruvians concerned with Peru's economic development plans arrived in London on October 2 to see how the products of British industry can contribute to the development of the Peruvian economy.

DR. Louis Verhoestraete has been appointed director, division of health protection and promotion, at the Geneva headquarters of the World Health Organisation. The division, which was recently created in the course of a reorganisation of the Organisation's headquarters services, groups activities in the following fields: cancer, cardiovascular diseases, dental health, mental health, nutrition, and social and occupational health.

TOPICAL REFLECTIONS

By Xrayser

Sale of medicines

From the days of monastic medicine, when the treatment of the soul and the body were closely linked, to the time when the more astute realised that the body could be detached from the soul, to the financial gain of the astute, there has been great competition in the field of nostrums for diverse diseases. Many and varied have been the means adopted to convince the masses that they stood in perpetual need of remedies that would purge the humours, or increase life's span, or restore to the septuagenarian both the desire and the capacity to indulge in hand springs over the table. And, to judge from the amounts of such medicines consumed over the centuries, the masses have not been found difficult to convince. Methods of convincing have altered with the passage of time, and a quite elaborate technique has been developed, becoming more subtle with the years. Early advertisements show that nothing was barred. But the selling of medicines was not confined to those who were powerful enough to advertise by Press advertisements, for the market place and the street corner offered scope to those who had the gift of eloquence. Slowly, the picture has changed. The street vendor has vanished from the scene and the law has curtailed some of the more extravagant fancies of the unscrupulous, but in general, as the imagination and constructive memorandum (p. 362) of the Pharmaceutical Society emphasises, medicines are free from control as a general principle. In seeking to reverse that principle, the Society will have no difficulty in finding pharmaceutical support, but there are powerful vested interests that will be less likely to regard the Society's attitude with a sympathetic eye. Yet a nation which was sufficiently enlightened to launch a National Health Service twelve years ago should not find it impossible to appreciate the value to the country of the approach suggested in the memorandum.

John C. Lettsom

Of the many people mentioned by Dr. T. D. Whittet in the comprehensive article on food and drugs, the name of John C. Lettsom recalls the career of a remarkable man. If for nothing else, his fame would endure because of the sympathy he showed to the poor and the needy, for it was Lettsom who inaugurated the system of dispensaries which spread to all parts of the country. There, income was no barrier to a patient being seen by the most skilled medical men of the day, and it was only with the coming of the National Health Service that the scheme launched by Lettsom became no longer necessary. He was born in the West Indies and, on the death of his father, inherited as his sole capital some negro slaves. His first act was to set them free, and he began the struggle of life with nothing except his ability and a sterling character in keeping with his Quaker beliefs. Lettsom's academic studies took him to Edinburgh, Paris and Leyden, in turn, and he eventually settled down to practise in London, where his income reached the astonishing level of £12,000 in the year 1795. He himself is reputed to be responsible for the following famous lines:

*When any sick to me apply,
I physicks, bleeds and sweats 'em;
If after that they choose to die,
What's that to me, I. Lettsom.*

But that does not ring true. Lettsom was a humanitarian, and it is recorded that he once sent a note to a parish authority which said: "One shilling per day for Mrs. Maxton. Money, not physick will cure her."

Evergreen

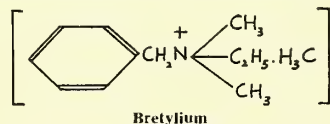
Your account of the remarkable youth and energy of a nonagenarian pharmacist must make encouraging reading to youngsters in their sixties who have surrendered themselves to a feeling of resignation to the advance of time. With the example of Mr. Onyons (p. 404) before them, they will take fresh heart. Usefulness, activity and interest are better ingredients than many of those dispensed by the youthful-looking veteran.

A Symposium on Hypotensive Drugs

FIVE PAPERS PRESENTED AT ALDERLEY PARK

UNDER the chairmanship of Dr. W. A. Sexton (research director of the pharmaceuticals division, Imperial Chemical Industries, Ltd.), the Fine Chemicals Group of the Society of Chemical Industry, jointly with the Manchester sections of the Society and of the Royal Institute of Chemistry, met at the I.C.I. research laboratories at Alderley Park, Ches, for a symposium on "Drugs for the Treatment of Hypertension."

DR. F. C. COPP outlined a "New Approach to the Control of Hypertension," starting from the report that the *N*-2-(2, 6-dimethylphenoxy) ethyl-*N,N,N*-trimethyl ammonium radical showed a different adrenergic action from that of the ganglionic blocking agents. That had led the Wellcome Research Laboratories to study two series of compounds: a series of *O*-substituted benzyl-quaternary ammonium derivatives; and a series of derivatives of the basic radical substituted in the 4' position by other groups, notably acyl. From the first series the compound that had emerged as most promising was an *N*-*o*-bromobenzyl *N*-ethyl-*N,N*-dimethylammonium (bretylum) salt;



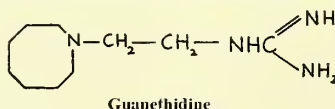
and from the second series an *N*-2-(4-benzoyl-2, 6-dimethylphenoxy) ethyl-*N,N,N*-trimethyl ammonium (172C58) salt. From various members of both series workers at the laboratories established the structural features responsible for maximum activity. Both of the compounds mentioned were highly active and selective anti-adrenergic agents in experimental animals but in human beings 172C58 was found deficient in demonstrable effect. Bretylum, on the other hand, was highly effective. It thus became the first practical example of a drug to control hypertension by the mechanism of interrupting the passage of the nerve impulse through a sympathetic ganglion.

Diuretics as Hypotensives

A different mechanism, partly unexplained, by which hypertension was reduced by the removal, via the urine, of sodium, potassium and chloride ions, was the subject of a paper by DR. E. J. NIELSEN (Leo Pharmaceutical Products, Ballerup, Denmark). Dr. Nielsen discussed the status of diuretics in the treatment of hypertension, dealing especially with the compound 7-sulphamyl-3,4-dihydrobenzo-*s*-thiadiazine-1,1-dioxides substituted in the 2,3,6 and 7-*N*-positions. The many questions put to Dr. Nielsen provided evidence of widespread interest in the drug and its mode of action.

A discussion of the relation between structure and activity of synthetic hydrazinoheterocycles was put forward by DR. A. MARXER. The study of those compounds had led to the introduction in America of hydralazine, the first ex-

ample of a medicinal compound to contain a hydrazine group and a ring system. The drug had not found wide acceptance in Britain. The group of hydralazines, he said, had a high structural specificity. Several recent modifications of the reserpine molecule were said to have shown comparable activity. A claim by Abbott Laboratories, Ltd., to have found hypotensive activity in a certain phenyl-piperazine derivative led to new investigation in the piperazine field, but even greater interest had attached to the discovery, in the past two years, of hitherto unknown structures with hypotensive activity: ganglionic blockers such as pempidine and bretylium and the new diuretics were discussed by other authors of the symposium. Mention had to be made of a completely new class: the guanethidines,



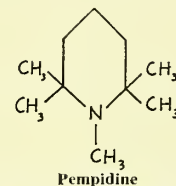
which were the result of research in the field of amidoximes, compounds found to have long-lasting hypotensive action. The action could be enhanced by substituting the amidoxime moiety by a guanido group, producing guanethidine. Dr. Marxer discussed the correlation between structure and activity and gave pharmacological details showing that hypotension was effected by a specific peripheral sympathetic nervous suppression impeding sympathetic efferent transmission.

A Simultaneously Discovered Drug

How pempidine (1:2:2:6:6-pentamethyl-piperidine) had been arrived at independently in two laboratories was shown in papers by DR. E. H. P. YOUNG (pharmaceuticals division of Imperial Chemical Industries, Ltd.), and MR. G. E. LEE (May & Baker, Ltd., Dagenham). The routes taken had been entirely different.

In the I.C.I. laboratories, said DR. YOUNG, a search for improved ganglion-blocking hypotensive agents had been based on the hypothesis that hindered secondary or tertiary amines would yield an effective compound. In a series of simple aliphatic tertiary carbinamines, a few compounds had shown significant ganglion-blocking effects, and it had been deduced that an increase in activity might be obtained by hindering the nitrogen atom further by attachment to two tertiary carbon atoms. The simplest compound of that type, di-*tertiary*-butylamine, presented difficulties of preparation and of stability, so attention had been concentrated on the stable, readily available, related cyclic homologue, 2:2:6:6-tetramethylpiperidine. That was found to be a potent inhibitor of ganglionic transmission. In work on variations of the compound the need to have, for highest activity, two tertiary carbon atoms joined to the nitrogen atom, was confirmed, and the compound eventu-

ally selected for clinical trial was pempidine.



The dome-shaped molecule, slightly depressed below, is conceived as providing an almost perfect protection of the ganglionic nerve-ending against access by other chemical compounds.

MR. LEE, reporting on work by L. Bretherick, S. J. Corne, N. D. Edge, E. Lunt, W. R. Wragg and himself, described investigations into the structural requirements for strong ganglion-blocking activity and long duration of action amongst some lower homologues of mecamylamine. They had discovered similar activities amongst isomers with enlarged ring structures. In both series of compounds it was found that the successive introduction of *C*-methyl groups surrounding the nitrogen atom brought about a progressive increase in ganglion-blocking activity and duration of action. In the course of the work they were led to discover the ganglion-blocking activity of the structurally simpler compound pempidine. The team examined about 150 congeners of pempidine and gave their conclusions as to the structural requirements for activity.

INSTRUMENTS AND APPARATUS

Molecular Models. — Units from which molecular models, accurate as to their stereo characteristics, may be quickly built up are produced by the [Swiss] Büchi Co., and distributed by L. Light & Co., Ltd., Colnbrook, Bucks. The units consist of little rods and tubes soldered together at the correct angles at a point representing the atomic nucleus. A simple system of marking allows easy differentiation between isolated, conjugated and aromatic double bonds and different atomic nuclei are readily distinguished at a glance by their distinctive colourings. The units are constructed of stainless steel and are small enough for convenient handling (a considerable number may be carried in the pocket).

Continuous Automatic Analysis. — Applications are being developed for the AutoAnalyzer made by Technicon Instruments Co., Ltd., 26 Warwick Road, London, S.W.5. The AutoAnalyzer can be adapted for the continuous automatic chemical analysis of antibiotic broths. Contents of fermentation vats are constantly analysed at the rate of twenty, forty or sixty samples per hour; growth progress is continuously reported; the exact moment when harvesting should begin is indicated. That insures maximum broth yield, eliminates production losses and has other advantages. The company issues a data sheet giving the types of antibiotics "autoanalysed."

North-eastern Area Regional Conference

WIDE RANGE OF TOPICS DISCUSSED AT DURHAM

THE second North-eastern area Regional Conference was held in Durham on September 28 under the chairmanship of Mr. J. Gilliland. It took the form of an open forum with Mr. J. C. Bloomfield (a member of the Pharmaceutical Society's Council) and Mr. Allen Aldington, who is also a member of the Council and of the N.P.U. Executive Committee, as the panel. Four Branches of the Pharmaceutical Society took part: Durham County, Newcastle and Northumberland, Sunderland, and Tees-side.

Several questions had been submitted by members as bases for discussion.

Council/Member Relationships

The questions were broad in concept, and the first dealt with relationships between Council members and members of the Society. Mr. BLOOMFIELD stressed that the Council was an appointed body, and was very concerned with the will of the members; it was its privilege to try to translate the wishes of the members into practical policy. Mr. ALDINGTON felt that the Society and the N.P.U. were not just offices "in the two Squares in London," but were the focus of every individual member of the Society and the Union. The Council and the Executive Committee were elected to guide and to lead the members, as well as to try and put into practice the wishes of the majority of the members. Mr. MACKLEY, Newcastle, who posed the original question, suggested that "Leading does not entirely succeed and sometimes driving is necessary," and Mr. CLARK wanted to know why branch delegates were entirely ignored. The second question, sent in by Mr. BROCKLEBANK, concerned publicity. Mr. BLOOMFIELD said that he was all in favour of the appointment of a full time public relations officer for pharmacy, but Mr. ALDINGTON was more guarded in his reply and felt that all the advantages of the many different methods of achieving their object must be considered, before a final decision was made. Mr. KAY, Newcastle, made the point that there were 27,000 publicity officers—the individual members of the Society. Mr. ROBSON, Durham, suggested that pharmacists should display cards showing the proportion of the N.H.S. funds which accrued to pharmacy from the national fund. Comment was also made that at the recent British Pharmaceutical Conference in Newcastle, no attempt had been made to feed news to the local Press or authorities concerning pharmacy as a profession, or conference activities.

On the question of whether it was an advantage to invite doctors or dentists to local branch meetings, both speakers said that joint local meetings promoted by professional bodies to discuss definite subjects were a distinct advantage, but that it was not a good idea generally to invite other professional people.

Another member suggested that publicity tactics of some manufacturers in promoting "ethical products," by ex-

pensive gifts or prizes or other inducements, were distasteful to the majority of members, whether directed at the prescriber or the supplier of the products. Both speakers were unanimous in their condemnation of that practice, but also deplored the fact that some pharmacists were prepared to assist in such schemes. It was suggested that some Government action was needed. A question by Mr. HERDMAN concerned the suggestion that pharmacists would be better off if represented by one body rather than the present many organisations. It was supplemented by Mr. TURNBULL who asked whether in "... present trends, is it not time that N.P.U. membership should be widened to include all pharmacists?" Mr. BLOOMFIELD did not agree with the suggestion, and felt that the present organisations were functioning satisfactorily. Mr. ALDINGTON said that the very nature of the N.P.U. as an organisation of proprietor pharmacists precluded the widening of its membership, and that he felt that the individual organisations were well formed and efficient. All pharmacists were members of one great professional organisation, and in his opinion that was the best type of umbrella for the members—thus preventing internal friction which might be caused under economic representation. Mr. CLARK, as a member of the council of the Guild of Public Pharmacists, deprecated the suggestion, and said that if the members of the various organisations gave their full backing, much more could be achieved. Mr. W. Low said "... the fact that the N.P.U. has reached such great heights of efficiency is due to the foresight of the officers and the executive through the years; let's keep it intact, and retain the Society to do the job which it is empowered to do under the charter. ..."

List Into "Calculator"

Another question suggested a minimum professional fee of one shilling and sixpence, and that it should be

considered unethical for an unqualified person to make a profit out of the work of a pharmacist. Finally the meeting discussed the ruling of the Restrictive Trade Practices Court, which had made necessary the cancellation of the N.P.U. price list and the issue of a "calculator" in its place. Mr. BLOOMFIELD pointed out that such matters were of great concern and illustrated the work of the executives of the national organisations. Mr. ALDINGTON bluntly commented that it was surely not the intention of the Government that independent proprietors should be penalised in that way. The registrar had ruled that the Act made the old N.P.U. price list an illegal document, but Mr. Aldington said that a similar price list could be issued by multiple organisations to their branches—"this is discrimination against the independent proprietors, and makes things very difficult for them." The N.P.U. price list had always been a "fair" list, and had been accepted as such by previous Governments—the discrimination was completely unfair. It was the speaker's intention to use the new "calculator" in conjunction with the last issue of the price list, and thus evolve a code of prices that would be very similar to those used in the past—the variation in prices being noted in each issue of the "calculator." The method was endorsed by Mr. G. H. M. GRAHAM, who said that he intended to use different coloured inks to denote the variation in "mark-up."

POLIO IN JAPAN

THE Japanese Ministry of International Trade and Industry stated on September 26 that \$300,000 had been allocated for the importation of sufficient vaccine to inoculate 700,000 people against poliomyelitis. The Ministry of Welfare said that 3,729 people had been affected by the disease in the past few months during an epidemic in Hokkaido, Northern Japan. It was planned to vaccinate all children aged 6-18 months from January 1961.



PRESENTATION OF DIPLOMAS: Mr. Jack Klein (managing director of Max Factor Hollywood and London (Sales), Ltd.) (third from right) and Mr. S. R. Dawson (a director of Timothy Whites & Taylors, Ltd.) (centre) with executives of both firms on the occasion of the presentation of diplomas to winning cosmetic sales girls from Messrs. Timothy Whites' branches all over the country. The presentations concluded a three-day visit to London by the girls as guests of Messrs. Max Factor, during which they had a round of social engagements and a series of lectures and demonstrations on make-up, advertising and interior and window display.

NEW PRODUCTS AND PACKS

Hypotensive and Sedative.—Anglo-French Drug Co., Ltd., 11 Guilford Street, London, W.C.1, have launched a new hypotensive and sedative speciality, Neostol, each tablet of which contains 15 mgm. of phenobarbitone, 0.25 mgm. of reserpine and 60 mgm. of theophylline. The pack is a bottle of 100 tablets.

Single-dose Threadworm Treatment.—Parke, Davis & Co., Ltd., Staines Road, Hounslow, Middlesex, announce the introduction of a new speciality, Vanquin suspension, a single-dose treatment for threadworm infestation. Vanquin suspension is a strawberry-flavoured suspension of 6-dimethylamino - 2 - [2-(2,5-dimethyl-1-phenyl-3-pyrryl) vinyl]-1-methylquinolinium embonate equivalent to 10 mgm. of base per mil. The packs are bottles of 1 and 16 fl. oz.

Triple-strength Pessaries for Vaginitis.—Following two years' clinical trials of triple-strength Penotrane pessaries they have been made available under the name Strong Penotrane pessaries, in boxes of 15 and 100. The manufacturers, Ward, Blenkinsop & Co., Ltd., Fulton House, Empire Way, Wembley, Middlesex, state that the present standard Penotrane pessaries continue to be marketed and should be supplied against all orders except when the "strong" pessaries are specified.

Anti-fatigue Capsules.—Trevena, Ltd., 20 Grosvenor Place, London, S.W.1, are marketing a new product Quantril capsules to counter fatigue and restore alertness. The capsules are understood to have undergone prolonged clinical tests at Dudley Road Hospital, Birmingham, and elsewhere. They are being sold as "ethical" medical specialities and doctors in London and the Home Counties are currently receiving literature. Quantril contains caffeine citrate and vitamin B₁. It is intended for patients suffering from depression or mild anxiety neurosis, and in a variety of sub-clinical states of fatigue and depression. The pack is a box of twenty-five.

Aerosol Therapy Against Asthma.—Moore Medicinal Products, Ltd., Aberdeen, claim for their pressurised Brovon asthma inhalant that it provides an effective therapeutic dose within seconds. A device has been incorporated in the atomiser by which about 80 per cent. of the particles yielded by pressurised Brovon inhalant are within the optimum range for penetration into the finest ramifications of the bronchial tree. The propellant is understood to be non-toxic, non-inflammable and stable and the strong bottle is further enclosed in a tough shatterproof plastic cover that prevents splintering of the bottle if it should get broken. The unit is smaller than even a hand operated inhaler and may be carried inconspicuously in the handbag or pocket.

Oral Tablets for Nasal Congestion.—Smith Kline & French Laboratories, Ltd., Welwyn Garden City, Herts, are marketing Eskornade Spansules containing isopropamide iodide, phenylpropanolamine hydrochloride and diphenylpyraline hydrochloride (Histryl). The company report that Eskornade is use-

ful for congestion and hypersecretion in the nasal and paranasal sinuses associated with the common cold, hay fever, acute and chronic rhinitis, influenza and sinusitis. It is contra-indicated in glaucoma and prostatic hypertrophy and should be used with caution when severe hypertension is present. The recommended dosage for adults and children over twelve is one capsule every twelve hours. Eskornade Spansules are packed in containers of thirty.



DEMONSTRATION MADE EASY: A cut-out showstand produced by Remington Electric Shaver, Ltd., 26 Kensington High Street, London, W.8, invites potential purchasers to "Try this demonstration model and see for yourself." The customer may also buy the mirror.

Anti-rheumatic Foam Bath.—F. Farthing & Co., Ltd., 44 Queensway, London, W.2, are launching on October 3, their Sparkling Spa Formula 3 anti-rheumatic foam bath. The pack is an individually cartoned bottle containing enough for two baths.

Pocket Throat Spray.—Arthur H. Cox & Co., Ltd., 93 Lewes Road, Brighton, 7, announce the introduction of their Zim throat spray, specially formulated for common infections of the mouth and throat, and claimed by the company to be "non-irritant, bactericidal and bacteriostatic." The pack is a cartoned spray bottle.

"Super Vitamin" Tablets for Dogs.—C. F. Gerhardt, Ltd., New Era Works, Purley Way, Croydon, Surrey, have introduced a new product, Benbaws super vitamin tablets for dogs, the feature of which is that they are attractively flavoured and therefore readily acceptable when given whole or crushed in the dog's normal food. The product is available in two sizes.

Fruit Flavoured Vitamin Tablets.—Angettes, a new Bristol-Myers product

(proprietors, Angier Chemical Co.), distributed by J. C. Gambles & Co., Ltd., 209 Blackfriars Road, London, S.E.1, are blackcurrant-flavoured vitamin tablets formulated to provide protection against colds and influenza if taken regularly. The launching follows a test market operation which showed extensive demand for a simple vitamin product of that kind. The pack is a bottle of thirty tablets.

New Hair-coloriser Shades.—Steiner Products, Ltd., Grosvenor Street, London, W.1, announce the introduction of four new shades in their Glo-Ahead hair coloriser (for foaming into the hair). The shades are amber blonde, amber gold, amber brown and smoky pearl.

A Variety for Tinted Hair.—The "Living Curl" hairspray speciality of Revlon International Corporation, Ltd., 86 Brook Street, London, W.1, has been made available in a form for tinted and bleached hair. It is described as "the one hairspray that may be used with absolute safety on any bleached head and will never dull the colour."

"Window-carton" Soap Tablets.—Morny, Ltd., 201 Regent Street, London, W.1, have extended their window-box pack, first introduced with Blue Carnation toilet soap, to their full range of toilet soaps, each box colour-matched to the fragrance and having on its underside the "story" of the fragrance plus a guide to matching bath luxuries.

A New Range for Men.—Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool, 1, announce the introduction of H.F. (Henri Frères) toilet preparations for men. While the series is new, the name is old-established. The products include anti-dandruff shampoo, pre-shave lotion, hair cream, bay rum, after-shave lotion and brillantine. A collapsible display stand to hold one each of the range of 3-oz. bottles is provided free with order for 3 doz. or more.

Toiletries for Men.—County Laboratories, Ltd., Beecham House, Great West Road, Brentford, Middlesex, are introducing, under the name Mark Vardy, a new range of toiletries for men. The manufacturers state that, before the range was launched, the perfume used was extensively pretested among both men and women to make sure that the perfume was acceptable to women as well as men. The range in-



The Mark Vardy range of toiletries for men, manufacturers of which are County Laboratories, Ltd., Great West Road, Brentford, Middlesex.

cludes after-shave and pre-electric shave lotions, aerosol-packed foam shave cream, talc in plastic puffer pack, and deodorant Cologne in squeeze pack. Details of a special trade bonus offer are available from the company's representatives.

Hand Problem Solution.—Olva, a lotion newly launched by J. & E. Atkinson, Ltd., 24 Old Bond Street, London, W.1, is claimed to provide for



the first time so fine a blend of moisturisers and oils that the water can be said to have been "dissolved in oil." "The effect of the fine emulsion is to ensure that both oil and moisture penetrate to the under layer of the skin." Olva is not a medicated product.

TRADE NOTES

Electric Blanket Repairs.—A five day repair service for electric blankets is offered by Denhams (NCH), Ltd., St. George's Works, All Saints Road, London, W.3.

Christmas Wrapping Papers.—Four designs of Christmas wrapping paper are available from Macdonald & Son, Ltd., P.O. Box 6, Portland Mill, Ashton-under-Lyne, Lancs. Also available from the company are display papers, Christmas pelmets and flock papers.

Larger Packs Generally Available.—The Boehringer products division of Pfizer, Ltd., 137 Sandgate Road, Folkestone, Kent, have made generally available the special packs of Dulcolax which until now have been supplied only to hospitals. They are the bottle of 1,000 Dulcolax tablets and the carton of 200 Dulcolax suppositories. Supplies are available from the distribution department of Pfizer, Ltd.

Tooth-paste Switch.—Genatosan, Ltd., Loughborough, Leics, announce that they have discontinued marketing Genozo tooth-paste and that warehouse stocks are exhausted. The company's interest in the tooth-paste market is now concentrated on Selgin tooth-paste, which is now available for sale in all areas.

Trial Scheme Abandoned.—Warmabed, Ltd., Hollingworth Lane, Knottingly, Yorks had planned for their retailers this season to offer Warmabed blankets to the public under a "ten-day trial" scheme. The idea was that the customer would pay the full cash price for the blanket, the payment to be refunded if the blanket was returned to the retailer within ten days. The reasoning behind this project was the company's belief that, once a customer had experienced the comfort of one of their blankets, he would not wish to return it. An important aspect of the scheme was that any blanket returned would be sent back to Messrs.

Novelty Tooth-brush Holders.—The tooth-brush holders illustrated are Noddy and Popcye, two from a range of twenty manufactured in vinyl by Combex, Ltd., Ganton House, Ganton



Street, London, W.1. The holders are colour-fast and soft and each is packaged in a clear-view container for maximum sales appeal. Distribution is through wholesalers.

Warmabed by the retailer concerned, who would receive in its place a brand new blanket. A blanket that had been on trial would not be reissued for resale. To make certain that that important aspect of the scheme would be observed, all blankets sent from the factory were to be sealed, the unbroken seal being a guarantee that the blanket was new and in "mint" condition. In spite of that assurance, some doubt was expressed in some quarters. Rather than allow the integrity either of the manufacturers or of their retailers to be questioned, the directors decided to abandon the scheme and to rely again on the undisputed quality and reputation of their products—backed by a sound reputation for after-sales service. A record-breaking advertising campaign in the provincial newspapers starts next week, and there is a retail window-display competition with £320 in prizes.

Bonus Offers

ROBERTS CHEMISTS (BOND STREET), LTD., 76 New Bond Street, London, W.1. Kisby dry powder shampoo (available from wholesalers or direct from sole distributors). Thirteen to doz.

JOHN BELL, HILLS & LUCAS, LTD., Oxford Works, Worsley Bridge Road, London, S.E.26. Lotil cream. Thirteen to doz. on order for 3 doz. or more; 5 per cent. discount on order value £5 and over.

FASSETT & JOHNSON, LTD., 86 Clerkewell Road, London, E.C.1. Anti-Bi-San. Each 1 doz. ordered invoiced as ten units (assorted adult's or child's strengths). Till November 30.

C. F. GERHARDT, LTD., New Era Works, Purley Way, Croydon, Surrey. Benbows super vitamin condition tablets. Twelve 1s. size invoiced at 7s. 9d. (instead of 8s. 6d.); and twelve 2s. 6d. size invoiced at 19s. 2d. (instead of 21s.). Until November 25.

J. C. GAMBLE & Co., LTD., 209 Blackfriars Road, London, S.E.11. Angiers emulsion, Angiers junior Aspirin, Angiers Supavite and Angettes. On all orders for assorted preparations exceeding £10 at list prices, each doz. charged as eleven, and 5 per cent. discount for fourteen days' display. Offer closes October 31.

EXPANSION PLANS

THE Miles Chemical Co. division of Miles Laboratories is to build a citric acid plant in Haifa, Israel, which is scheduled for completion in late 1961. It will have an annual capacity of 1,500 short tons of citric acid, of which 50 per cent. would be earmarked for domestic consumption and 50 per cent. for export.

BRITISH Hydrocarbon Chemicals, Ltd., are developing plans for a major extension of their manufacturing activities at a new location near the British Petroleum refinery at Llandarcy, near Swansea. Such a project can only be initiated on a large scale and, while no capital authorisations have yet been approved, initial investment may well be about £10 millions.

ABOUT 15-20 per cent. of American Cyanamid Company's \$40-50 millions dollars in capital spending this year is to be spent on expansion of plants abroad, primarily in western Europe. Currently, a new melamine resin plant is being built in the United Kingdom. Also in the United Kingdom, Formica International, Ltd., 40 per cent. owned by Cyanamid, is continuing to build up its plant, Cyanamid-Ketjen, NV, Holland is planning expansion into the speciality chemical field, e.g., for the paper industry. Another possible area of expansion abroad is in Sicily where a site has been bought. The company is now considering plans to build works there to make pharmaceuticals and speciality chemicals.

MANUFACTURERS' ACTIVITIES

Support for Expeditions.—Thermos, Ltd., Seymour Road, London, E.10, have supplied vacuum ware to thirty expeditionary parties—eighteen of them still "in the field"—in the first eight months of 1960. The company supports such enterprises, particularly if sponsored by universities or foundations.

Trip to Mediterranean.—Winner of first prize in the recent window dressing contest organised by Lenthalic, Ltd., 17 Old Bond Street, London, W.1 (see C. & D., August 6, p. 157), received their award—a four-day trip to the Mediterranean coast during September 22-25. Nominated for Boots, Ltd., Tredegar, Mon (winners of the chemists' section), were the company's territorial display manager (Mr. John Warne) and Mrs. Warne. Mr. Eric Greenstreet (sales director, Lenthalic, Ltd.), accompanied the party, which had perfect weather for the tour.

INFORMATION WANTED

The Editor would appreciate information about

Cure-dents
St. Bernard dressings

COMPANY NEWS

Previous year's figures in parentheses

BORAX CONSOLIDATED, LTD.—Mr. Norman J. Travis has been appointed deputy managing director.

ALLEN & HANBURYS, LTD.—Dividend 45 per cent. for year ended June 30 (30 per cent.). Group net profit £381,099 (£339,769), after tax £350,489 (£314,827).

GLAXO LABORATORIES, LTD.—Subject to audit, group profits for the year ended June 30 amount to £3,751,690 (£3,017,796) after providing for all charges including £3,550,000 (£2,858,000) for taxation. Profits attributable to outside shareholders are £97,495 (£54,301). Group profits include revenue of previous years, £27,052 (£107,617). The charge for taxation is after crediting £138,000 (£112,000) over-provision last year. The total dividend on the existing £8,266,050 Ordinary capital is raised by 4 per cent. to 18 per cent., with a final of 11 per cent. The directors also propose a one-for-four scrip issue.

New Companies

P.C.—Private Company; R.O.—Registered Office

PARK LANE PHARMACY, LTD. (P.C.)—Capital £100. To acquire the business of retail chemist carried on by J. Matthews, 114 Piccadilly, London, W.1, etc. Directors: James Matthews and Anne H. Simpson.

RATHBURN PRODUCTS, LTD. (P.C.)—Capital £500. To carry on the business of manufacturers of and dealers in veterinary goods of all kinds. Directors: John Rathburn and Kathleen Rathburn, Moor Cottage, Mottam in Langendale, Manchester.

E. B. STAMP, LTD. (P.C.)—Capital £10,000. To acquire the business of a chemist and druggist carried on by Sidney Barker at 29 High Street, N.W.3, as E. B. Stamp, etc. Directors: Eric D. Miller, Clifford Hill, M.P.S., and Sidney Barker, M.P.S. (chairman).

M. ROSS & SON, LTD. (P.C.)—Capital £100. To carry on the business of wholesale and retail dealers in drugs and toilet requisites, etc. Directors: Michael Ross, Michael H. A. Ross and Margaret A. Ross. R.O.: 69 Gloucester Place, London, W.1.

BUSINESS CHANGES

MR. S. D. STEYN, M.P.S., trading as GOULD & CO., is moving to new premises at 20 North Audley Street, London, W.1, on October 10.

CURACHO CO., has removed to The Old Drive, Vicarage Lane, Horley, Surrey (telephone: Horley 4311). Address for goods: The Arches, The Grove, Horley.

PFIZER, LTD., are removing their head office to Sandwich, Kent (telephone: Sandwich 2371) on October 24. The Folkestone office will be closed from October 22.

POLAK & SCHWARZ (ENGLAND), LTD., 50 Great Cambridge Road, Enfield, Middlesex, began trading as International Flavors and Fragrances I.F.F. (Great Britain), Ltd., on

October 1. Polak & Schwarz International N.V., Zaandam, Holland, have also changed their name to International Flavors and Fragrances I.F.F. (Nederland), N.V.

MR. F. H. BATE, M.P.S., formerly of Midhurst, Sussex, has purchased the business of Mr. G. N. Downing, M.P.S., Ludgershall, Wilts, and also the business of Mr. E. Mansell, M.P.S., Ottery St. Mary, Devon, the latter being his residence.

THE chemicals sales office of Armour Hess Chemicals, Ltd., is to be situated at 6 Arlington Street, St. James's, London, S.W.1, from October 24. The Distec fatty acid sales office for the Greater London area will also be at that address. The new telephone number is Hyde Park 7831.

LEWIS & BURROWS, LTD.—The company's wholesale activities have been transferred to 197 Lyham Road, Brixton, London, S.W.2. They have also reopened their pharmacy at 146 Holborn, London, E.C.1, after extensive alterations. Mr. John A. Avery has been appointed general sales manager of the company. In addition to the responsibilities of buying and merchandising of all "non-ethical" products, Mr. Avery will control store operations including refitting and new store developments.

Appointments

BROOK, PARKER & CO., LTD., have appointed Mr. D. R. McKenzie, 73 Dunhard Street, Maryhill, Glasgow, their representative for Glasgow and district.

TRUFOOD, LTD., Wrenbury, Ches, have appointed Mr. G. Hampson representative for their Lancashire territory and Mr. J. A. Baines for the North-eastern counties.

OVERSEAS VISITS

MR. LESLIE C. MARKS (a director of Leslie Marks & Co., Ltd., and Cresswell Bros., Ltd.), is leaving for South Africa returning through the near east where he will be visiting the companies' agents and customers.

MR. DAVID M. NICHOLAS (son of Mr. Maurice Nicholas, chairman, Aspro-Nicholas, Ltd.) left London by air on October 3 for Brussels and Paris with a three-man team of the company's marketing experts to visit the company's associates in Belgium and in France. Mr. David Nicholas joined the marketing division a few months ago, and the trip which is his first as a member of the organisation will give him an insight into the group's marketing methods. The three members of the team with him are: Mr. Frederick Razzell, Mr. William Wand and Mr. Ian Dawson-Shepherd.

MR. W. C. JOHNSON, M.B.E., F.R.I.C. (technical director, Hopkin & Williams, Ltd.), is making a tour of Africa during which he will be delivering lectures to the local branches of various scientific associations and learned societies, on the following subjects:—"The Manufacture and Control of Laboratory Reagents." "Recent Advances in Organic Reagents for Analysis." "Complexometric Titration of Metals with EDTA and the new Metal

Indicators." Mr. Johnson is visiting Uganda, Tanganyika, Kampala, Nairobi, Northern and Southern Rhodesia, and leaves for Johannesburg on October 23.

DEATHS

CROSS.—On September 27, Mr. George Cross, M.P.S., 3 Woodside Avenue, Hamilton, Lanarks, Mr. Cross qualified during 1902.

FORRESTER.—Suddenly, on October 2, while on a visit to his son at Brackley, Northants, Mr. G. P. Forrester, a former Editor of THE CHEMIST AND DRUGGIST. After a considerable experience in the pharmaceutical industry in Europe, Mr. Forrester became Editor of the paper in 1927. During his editorship the paper reflected his international interests, and made



important contributions towards overcoming legislative and trade barriers to international trade in drugs. He gave a characteristic flavour to the page layout, illustration and techniques of production of the paper. He also played a major part in the compilation of "Pharmaceutical Formulas—Vol. I." Mr. Forrester left the C. & D. in 1935 for a position with a pharmaceutical company in Britain and retired some years ago, taking up residence in Worthing, Sussex. He is survived by his widow, son (headmaster of Brackley School) and a married daughter.

HARRIS.—On October 1, Mr. John Vernon Harris, M.P.S., 123 Bonvilston Road, Pontypridd, Glam. Mr. Harris qualified in 1936.

McSHEE.—On October 3, Mr. Frederick McShee, 28 Cavendish Road, London, S.W.12. Mr. McShee, who had been a member of *The Times* staff since 1922, for many years in the foreign sub-editorial department, had undertaken special reporting for the Pharmaceutical Society since 1922, and had become known to many pharmacists by his presence at Council meetings, Branch Representatives' meetings, etc. He attended the recent British Pharmaceutical Conference meeting at Newcastle-on-Tyne.

OWEN.—On September 23, Mr. W. G. Owen, M.P.S., The Emlyn Pharmacy, Newcastle Emlyn, Carmarthens. Mr. Owen qualified in 1917 and had been in business in Newcastle Emlyn for about forty years.

PARKINSON. — Recently, Mr. George Sadler Parkinson, M.P.S., 5 Victoria Road, Fulwood, Preston, Mr. Parkinson qualified in 1926.

SPEECHLY.—On August 30, Mr. Reginald Edgar Speechly, M.P.S., 480 Victoria Avenue, Victoria, B.C., Canada, Mr. Speechly qualified in 1911.

UNITED STATES DRUG INDUSTRY

Kefauver hearings recommence

SENATOR Estes Kefauver's subcommittee on Antitrust and Monopoly recently concluded its seventh session of hearings on the drug industry. The subcommittee's charges claimed that prices of antibiotics were unreasonably high.

Tetracycline came under special attack, the subcommittee claiming that since it was issued in 1951 five companies had sold the product at exactly the same price regardless of the form or quantity purchased. It was only in August (almost ten years after its introduction) that there had been a 15 per cent. price reduction to the retail trade.

The subcommittee also claimed that aureomycin, chloromycetin, and terramycin had also been sold at exactly the same price by all makers. An executive director of the Military Medical Supply Agency said that the agency had been forced to buy drugs from foreign suppliers "because of the unco-operative aspects of the drug industry." Since September 1959 the agency, which had bought drugs, etc., worth \$33.7 millions for all the armed

forces in the financial year 1959-60, had awarded five foreign drug contracts worth a total value of \$1.7 million. Had they bought them from United States suppliers, he claimed, the Government would have had to pay \$3.6 millions. The drugs purchased abroad were tetracycline hydrochloride, nitrofurantoin, and meprobamate.

SENATOR EVERETT DIRKSEN, a member of the subcommittee, strongly protested at the agency's "bargain hunting"; he said the saving was meaningless when all other factors were taken into account.

MR. L. C. DUNCAN, manager of Lederle Laboratories, division of American Cyanamid Co., described the Italian drug industry as being "a nest of pirates operating in a patent-free sanctuary." He pointed out that Italy was the only nation in the world that did not have some kind of patent protection in drugs.

Senator Kefauver is to hold one more session of hearings on the drug industry and will deal with the group of products including certain vitamins and sulphonamides.

proportion to other accidents in the home. So often the victim was a small child: the most vulnerable were those in the third year, and there were more boys involved than girls. Many died, but many more received hospital treatment. Dr. Boucher pledged the Ministry's support for the important campaign.

The Pharmaceutical Society was wholeheartedly behind the campaign, said Mr. H. S. Grainger (vice-president of the Pharmaceutical Society). Mr. Grainger pointed out that the range and potency of medicinal substances was greater now than a generation ago and explained why it would not be practicable for the chemist to include the name of the preparation on the label: "Would it be an advantage or would it be a danger to put the name of the products on the labels of the dispensed medicines when you have such similar names—but such different types of drug—as Panadol and Parabol, carbutamide and carbromal, and Lederkort and Lederkyn?" Mr. Grainger pointed out that patients might confuse the names, and with such compounds as phenindione, which could be prescribed as P.I.D., phenindione, or Dindevan, the patient might become anxious if on different occasions he received a medicine with a different name from on a previous occasion, although they were in fact the same drug.

Mr. Grainger, to emphasise the difficulties of colour coding drugs for identification, passed round, at the conference launching the campaign, a set of cards of THE CHEMIST AND DRUGGIST Guide to the Identification of Tablets. Mr. Grainger also stressed that patients should not hoard medicines against possible future need. He pointed out that the Pharmaceutical Society deprecated the use of teaspoons for measuring medicines.

BRANCH EVENTS

WEST HERTS AND WATFORD

Call for Higher Dispensing Fees

A JOINT meeting of the West Herts Branch of the Pharmaceutical Society and Watford Branch of the National Pharmaceutical Union held a full discussion at Garston on September 28 of a resolution calling for higher dispensing fees under the National Health Service. Mr. J. R. Goldthorpe (West Herts Branch chairman) who presided, was supported by Mr. J. Kinloch (N.P.U. Branch chairman). MR. JOHN CHARLTON (superintendent, N.P.U. Central Checking Bureau) gave information about the present state of negotiations with the Ministry of Health. He also answered numerous questions, both about matters of principle and about points of detail. What he said led to an amendment being put to the original resolution. The amended version, which was passed with one dissentient and is being forwarded to the Central N.H.S. (Chemist Contractors) Committee, was:

This meeting is dissatisfied with the present situation regarding pharmacists' remuneration within the National Health Service, at the same time being extremely concerned at the lengthy delay in finalising negotiations with the Ministry of Health, and demands an immediate substantial increase in dispensing fees.

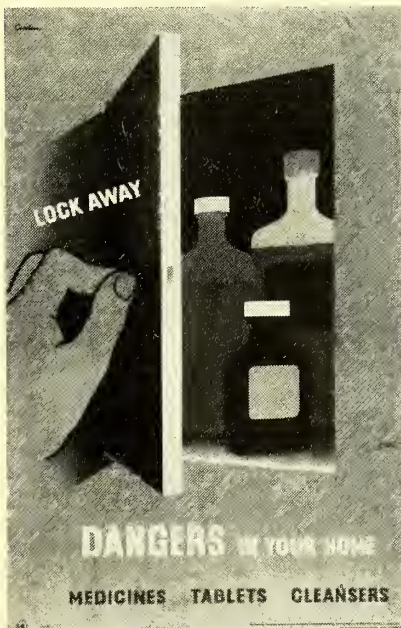
POISONING IN THE HOME

Three-month campaign of accident prevention

A THREE-MONTH campaign to educate the public to the potential dangers from poisons in the home was launched on October 3 by the Royal Society for the Prevention of Accidents. Mrs. M. Byrne (chairman of ROSPA's home safety committee) said at the opening of the campaign that hundreds of people die each year or suffer ill-effects from poisoning accidents that happened in their homes. "That tragic state of affairs results largely from ignorance of risk, or carelessness in handling potentially poisonous substances such as medicinal drugs and external rubs of various kinds, and a large variety of household cleansers." There was always a need for more information on such risks.

The basis of the Society's campaign is a ten-point plan: 1, Lock away medicines and tablets, store external rubs and lotions in a separate place; 2, always check the label of a bottle to be certain it is the right medicine; 3, give or take medicines in the prescribed dose and frequency only; 4, keep only one dose of sleeping pills handy at night; 5, never leave tablets within reach of children—they may mistake them for sweets; 6, flush away unfinished medicines, crush up and flush away, or burn carefully, surplus tablets; 7, never transfer cleaning agents into soft-drink bottles or unlabelled containers; 8, store disinfectants, detergents, bleaches, caustic soda, etc., in a safe place, out of reach of children; 9, don't mix bleach and lavatory cleaner—the fumes can be harmful; 10, keep garden sprays, insecticides, rat poisons, etc., under lock and key.

Dr. C. A. Boucher (Ministry of Health) said that every year there were nearly 7,000 fatal home accidents, and though the number of accidents from poisons was small in comparison with other accidents, its importance lay in the fact that nearly all of them could have been avoided. And the number of poisoning accidents was increasing in



One of the posters (29½ x 19½ in.) designed for the campaign.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Status and Pay

SIR, — "Still Quite Resigned" (C. & D., October 1, p. 408) may be interested to know that I wrote to the newspaper he cited vindicating, on pharmaceutical and professional grounds, the charge for the article and pointing out that the rate was 33½ and not 50 per cent. My letter was not published.

H. T. A. GRETTON,
Arnold, Nottingham

SIR,—I thought my letter (C. & D., September 17, p. 338) an adequate reply to N.H.S. Resignee's letter and to those pharmacists and others who participate in that new American game of status seeking. Status has something to do with pay but the two are not synonymous. If they were, bookmakers would enjoy equality with barristers. Your correspondent is quite right about the high wages paid to printers and it may be significant that, despite their skill and long training, they are content to remain tradesmen and don't seek professional status. I did not write that the competition within pharmacy is not keen, I said that in medicine it is even more severe. I stand by my point. There is a shortage of pharmacists whilst the reverse obtains in medicine. It is simply a question of supply and demand.

J. P. RYAN,
London, N.5

A Title

SIR,—As a suggestion for a title to replace "retail pharmacist" (see C. & D., September 24, p. 364), the title "public pharmacist" would be more in keeping with the responsibilities of the pharmaceutical chemist in charge of a retail establishment. However, through the Guild of Public Pharmacists that title has become associated with the duties of a hospital pharmacist. May I therefore put forward the description "general pharmacist" as an alternative to "retail pharmacist."

G. A. SCHMEIDLER, Ph.D., B.Sc.,
A.R.C.S., D.I.C., A.R.I.C.,
London, W.C.1

An Annual Business Conference?

SIR,—Annual conferences in most callings are usually of benefit to members following their particular trade or profession. They provide an annual survey of conditions. Not so our pharmaceutical conferences—they tend to provide a free advertising platform for new products and a social get-together for the "bigwigs" in the pharmaceutical world. The majority of members are unable, through business ties, to attend. An annual business conference for retail chemists might well bring improvements in our conditions under National Health Service contracts. For many years Australian chemists have received dispensing fees of 5s. 6d. per item—plus costs. No question of decimal points of one penny in arriving at prices! As professional partners in the National Health Service we should receive comparable treatment to other

practitioners such as dentists and opticians. The Minister of Health should be professionally qualified for his task and able to judge fairly the value of his various departments—particularly pharmacy. TIED

A Manufacturer's Problem

SIR,—Here is a problem which I would like to put squarely in the laps of your readers. Four years ago we commenced a research project into the sanitising of babies' napkins. That work was described in technical papers which members of our laboratory staff published in the *Medical Officer* and in the *Nursing Mirror*. In March of this year we marketed the outcome of that research in a commercial product. Feeling that a scientific product should be distributed through technical channels, we restricted distribution to pharmacists. We twice sent out letters to every pharmacist in the country, and we have contacted a great many of them, plus all the wholesalers. Yet every day we get letters from mothers who, through our advertising and through the recommendation of their nurses, wish to use our product. The tenor of those letters is "Where can I get it; my chemist says he cannot obtain it?" Will our chemists please tell us what more we could have done or can do to make known to them that every major wholesaler in the country has our product in stock and can supply him?

H. A. H. CROWTHER, Ph.D.,
GASCOIGNE-CROWTHER, LTD.,
Caversham, Reading

"B.P. or Better"

SIR,—Pharmacists will note with interest the report of the industrial section of the International Pharmaceutical Federation on trade marks and free names, the significant sentence being "the free name does not necessarily take into account a number of variables of profound importance, e.g. conditions of manufacture, standards of quality, control, excipients, solubility, and rate of disintegration, which may differ substantially, to the advantage or detriment of the patient." On the other hand Mr. Grainger appeared to advocate substitution. It seems to me that those who support that practice overlook the fact that the B.P. does not represent the *summum bonum* of pharmacy, but provides only a minimum standard that can be, and often is, surpassed by the best manufacturers. Moreover, the B.P. specification does not cover all aspects of manufacture. It leaves a large discretion, e.g. in the choice of excipient or the introduction of the many new techniques. The best firms spend large sums on formulation and process research, and can produce preparations which, both pharmaceutically and therapeutically, are often superior to the more routine products of firms with limited "know-how." Yet both products may still be "B.P." No one complains when a

discerning person selects, say, his cigars or wines with an eye on the name that guarantees their quality; but the cheapest anonymous drugs seem "good enough" for the N.H.S. patient!

F. F. MARCHBANK,
Horsham, Sussex

The Change to Metric

SIR,—Having read the report of Dr. Capper's address on the change to the metric system (C. & D., September 10, pp. 316-21) I fail to see any reason why there should be any such change. The dispensing of prescribed medicines is a purely domestic matter between physicians and pharmacists, and provided that the patient gets the medicaments required by the prescriber it is immaterial what units of weight and measure are used. I have yet to meet a doctor who intends to change his thoughts from drachms to grammes. It appears that the change to the metric system is advocated for the convenience of students of medicine and pharmacy. Can it be that the present-day student, with all his grants and improved facilities, is incapable of learning the apothecaries' system? If so, he should leave pharmacy alone and confine his activities to "pure science." It appears that no effort has been made to consult the actual working doctors and pharmacists who are daily prescribing and supplying the medicines for the nation. Their opinions were given by Big Brothers who know what is best for them. Or do they? Who is to pay the bill for all the expense involved in the purchase of weights, measures, bottles, spoons, tumblers, wineglasses, etc. Of course the Weights and Measures inspectors will have an issue of the appropriate equipment, but will the Government do the same for us? Or for the patients? Will there be a metric refresher course for patients? In 1940 the greatest Englishman of all time talked of the "lights of perverted science" and said "upon the result of the Battle of Britain depends the continuance of British institutions." In 1960 the "Battle of Britain" seems to have been replaced by the *Federation Internationale Pharmaceutique*. I suggest that our planners are marching to the tune of a band we cannot hear.

J. S. CLARKE,
Weston-super-Mare

"Tapespondents" Wanted

SIR,—There must be a number of pharmacists or their staff who own tape recorders. I wonder if any of them would be interested in corresponding by tape ("tapesponding," if the purists don't object). There are innumerable things to be discussed and ideas to be exchanged, both from a business and recreational angle. A 3-in. tape that will fit any machine may be bought for a few shillings, and lasts indefinitely. If anyone is interested I am prepared to keep a simple register of interests and types of machine.

L. BOLAM,
Richmond, Yorks

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

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TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

TELEPHONE CENTRAL 6565

Wages Otherwise than in Cash?

REVOLUTIONARY changes have been effected by the Payment of Wages Act 1960, in the payment of employees' wages hitherto required to be in cash.

It is still open to an employer to pay and to an employee to receive payment of wages in cash, but certain alternative methods of payment are authorised by the Act. When, however, the payment is made otherwise than in cash, certain conditions must be fulfilled. If the method used is to pay the wages direct into a bank, it must be made into the account of the employee at that bank. The company may be using the head office or another branch of the bank, but the payment for a particular employee must be made into the branch where the employee has his account, and it must be made into that account. It is immaterial whether the account is in the name of the employee only or is a joint account in the name of the employee and some other person. If the method is to pay by postal order or by money order, it is implied that the payment is being made by post. If payment is made by cheque, the cheque must be made payable to the employee in question, or to his order, not to a third person.

Nothing in the Act requires an employer to pay wages otherwise than in cash, even when he is requested to do so by his employee. Equally, there is no obligation on an employee to accept payment in any of the alternative ways, even though his employer requests him to do so. Agreement between the two is always necessary before payment may be made in one of those alternative ways.

The first step, of course, is usually for the employee to request his employer to pay his wages in one of the alternative ways. The request must be in writing. If the employee desires payment to be made into a bank to his account there, his request must specify the name and branch of the bank at which his account is kept, and the person or persons in whose name or names the account stands. If the employee does not require payment direct into his account at a bank, it would seem necessary for him to specify whether he desires payment by postal order, money order or cheque, for the employer does not appear to be under any obligation to make any such selection.

When the employer receives the employee's notice requesting payment in one or other of these alternative ways, one of several things may happen. He need do nothing at all, in which event, the employee's request will, after the lapse of fourteen days, cease to have any effect. He may, within fourteen days, refuse the request

by notice in writing, in which case also the request will cease to have effect. He may agree to the request, either by written notice to that effect within the above period of fourteen days, or by paying the wages in the manner requested by the employee. Where an employer pays wages in one of the alternative ways, a statutory obligation is imposed on him to give to the employee, either at or before (but not after), the time of such payment a statement containing the particulars of the gross amount of wages being paid; the amount of each deduction and the matter in respect of which each such deduction is made; and the net amount payable. An employee may at any time cancel a request for payment of his wages in any of the alternative ways, but for that purpose he must serve his employer with written notice of the cancellation, which, however, will not become effective until after the expiry of four weeks from the date of the notice. An employer who desires to withdraw from an agreement to pay wages in one of the alternative ways must likewise serve written notice on the employee, stating that the agreement is cancelled. Again, cancellation however, will not become effective until after the expiry of four weeks from the day of the notice. It is open to the employer or employee, however, by agreement to reduce or extend that period before the cancellation can become effective.

It should be noted, too, that one of the alternative methods of payment may be adopted, in the same way and by agreement, for paying only part and not the whole of the employee's wages. In that event the statement which the employer is required to give to the employee must also specify the net amount payable in the alternative way, and the net amount of the balance payable in cash.

Pharmaceutical Society of Ireland MONTHLY MEETING OF COUNCIL

(Concluded from THE CHEMIST AND DRUGGIST,
September 24, p. 392)

AT a meeting of the Council of the Pharmaceutical Society of Ireland, held in Dublin on September 13, the following were nominated for associate membership: J. J. Fielding, 22 Liberty Square, Thurles, co. Tipperary; John Rogers, 1 Irishtown, Kilkenny.

Daniel O'Sullivan, M.P.S.I., and Sean Gardiner, M.P.S.I., were elected to membership.

It was agreed that the licence certificates of the following should be signed and sealed: Sean R. Gardiner, Brian P. McGoldrick, Theresa McGroarty, Bernard A. McEneaney, John Dillon, Timothy J. Kerins, John M. Kerins, John MacHale, Thomas F. Moran, Catherine A. Hogan, Patrick J. Varden, Patrick J. McGovern, Albina D. Walsh, and John J. Walsh.

The following changes of address were noted: Henry Cashell, L.P.S.I., to 31 Washington Street, Cork; John P. Fehily, M.P.S.I., to 28 South Main Street, Wexford; James Haire, M.P.S.I., to Main Street, Gaignamanagh, Kilkenny; John Rogers, A.D., to 1 Irishtown, Kilkenny.

It was agreed that the following should be nominated for registration in (a), Pharmaceutical Chemists' Preliminary Register: Muriel M. T. Arnold, Bernard Berney, Richard F. Cusack, Donald V. Cullinane, Louis M. Davis, Annette M. Duddy, Sheila Garavan; and (b), Pharmaceutical Assistants' Preliminary Register: Patricia Fitzgerald, Eithne R. McCormick, Josephine A. Greene, John J. McCorisk, Mary T. Noonan, Kathleen M. Whooley.

Drs. J. D. Dillon, 117 Holloway Road, London, N.7, and Henry O. Gbejuade, 65 Glover Street, Lagos, Nigeria, were granted registration as pharmaceutical chemists, having submitted L.A.H. certificates.

Present were Messrs. H. P. Corrigan (president), F. Loughman, M. Costello, M. F. Broderick, C. J. Cremen, J. Gleeson, D. J. Kennelly, V. G. McElwee, T. R. Miller, G. C. O'Neill, T. B. O'Sullivan, M. Power, F. J. Robinson, R. J. Power, J. P. O'Donnell. Apologies for absence were received from Miss L. Cunniffe and Messrs. J. J. O'Regan and P. A. Brady.

At the meeting of the Benevolent Fund which followed a number of grants were passed for payment.

Drug Share Movements

THE table below gives the high-low London Stock Exchange quotations during the first half of 1960 of some of the important public companies in chemical and allied trades. The figures in the third column represent the middle price on October 3.

NAME OF COMPANY £1 units unless otherwise stated	HIGH	LOW	LATEST
	s. d.	s. d.	s. d.
Albright & Wilson, 5s. ...	34 3	25 9	28 0
Ashe Chemicals, 1s. ...	3 5½	2 6½	2 7½
Aspro-Nicholas, 5s. ...	24 6	11 4½	23 0*
Beecham Group, 5s. ...	50 0	37 3	47 3½
Boots Pure Drug, 5s. ...	49 9	27 9	45 6
Borax (Holdings), Defd. Ord., 5s. ...	22 4½	16 6	16 7½
British Drug Houses, 5s. ...	20 0	11 6	18 1½
Cussons, Sons & Co., 2s. ...	14 6	11 1½	14 0
Dubarry Perfumery, 1s. ...	3 0	1 9	2 6
Evans Medical, 5s. ...	19 2	11 9	19 0
Gee, Arnold M. ...	3 6	2 6	2 8
Glaxo Laboratories, 10s. ...	73 6	57 0	71 6
Greeff Chemical Holdings, 5s. ...	26 0	14 7	25 6
Hampshire, F. W., 5s. ...	29 6	23 9	35 0
Howards & Sons ...	63 6	22 6	61 3
Ilford, 5s. ...	33 6	22 3	27 9
Imperial Chemical Industries... 5s. ...	75 3	54 3	71 3
Laporte Industries, 10s. ...	†33 6	21 3	31 3
Monsanto Chemicals, 5s. ...	29 4½	23 0	28 0
Potter & Clarke, 1s. ...	3 8	2 0	3 3
Reckitt & Colman Holdings... 5s. ...	82 6	59 0	80 6
Sangers, 5s. ...	14 4½	10 9	11 0
Savory & Moore, 5s. ...	37 0	25 0	36 3
Smith & Nephew ...	15 6	11 6	14 0
Taylors (Cash Chemists), Lon- don 6% Cum. Pref. ...	19 9	16 6	17 6
Do. (Cash Chemists) Trust 6% Cum. Pref. ...	20 3	16 6	17 6
Unilever ...	180 0	129 0	148 6
United Glass, 5s. ...	16 9	11 9	15 10½
Vitamins, 5s. ...	17 9	13 8	14 0
Whites (Timothy) & Taylors, 5s. ...	26 4	17 0	22 0
Do. 7½% Pref. ...	25 4	22 3	23 3
Willows Francis, 2s. 6d. ...	7 9	6 3	7 0
Yardley & Co., 4s. ...	35 0	30 3	35 0
Do. A, 4s. ...	34 10	24 0	34 0
Do. 4½% Pref. ...	16 0	12 9	12 9
Do. 5½% Pref. ...	18 3	15 0	16 3

*ex dividend, †adjusted.

A PHARMACIST'S ANTHOLOGY

NINE TIMES SUBLIMATED ELIXIR

From "Monkey" by Wu Ch'eng-ên. Translated from the Chinese by Arthur Waley.

"MASTER, stop praying," said Monkey, "and let me cure him in the World of Light." "How can that be done?" asked Tripitaka. "I will rise on my cloud-trapeze," said Monkey, "and force my way into the southern gate of Heaven. I shall not go to the Palace of the Pole and Ox, nor to the Hall of Holy Mists, but go straight up to the thirty-third heaven, and in the Trayāsimstra Courtyard of the heavenly palace of Quit Grief I shall visit Lao Tzu and ask for a grain of his Nine Times Sublimated Life Restoring Elixir, and with it I shall bring the king back to life." ... As soon as Lao Tzu saw him coming, he called to the boys, "Be careful, all of you. Here's the thief who stole

the elixir come back again." ... "Monkey," said Lao Tzu, "five hundred years ago you made great trouble in the Palace of Heaven, and stole a great quantity of my holy elixir; for which crime you were arrested and placed in my crucible, where you were smelted for forty-nine days, at the cost of I know not how much charcoal." ... But suddenly Lao Tzu thought to himself: "This monkey is very crafty. If he really went away and stayed away, it would be all right. But I am afraid he will slip back again and steal some." ... "If you are really anxious to have some, I'll spare you just one pill." ... Monkey filled his mouth with water, and then spat out the elixir into the Emperor's lips. ... Pouring in some clean water, he floated the elixir down into his belly. ... Putting his wide mouth against the Emperor's lips he blew hard into his throat. The breath went down to the Two-storeyed Tower, round the Hall of Light, on to the Cinnabar Field, and from the Jetting Spring went back again into the Mud Wall Palace. Whereupon there was a deep panting sound. The king's humours concentrated, his spirits returned. He rolled over, brandished his fist, and bent his legs.

NEW BOOKS

Directory of the Republic of Ghana, 1960

Diplomatic Press and Publishing Co., 13 Cotswold Gardens, London, N.W.2. 11 x 8½ in. Pp. 211. 30s.

MANY political and economic changes have occurred in Ghana since the previous *Directory of Ghana* was published. This, the second edition, contains up-to-date facts and figures and enlarged trading and commercial sections. A "Who's Who" giving short biographies of prominent persons in Ghana occupies twenty-four pages at the end of the directory. Details of the country's health service can be found on pp. 122-24.

All India Pharmaceutical Directory

M. M. DALVI CO. (sole distributors: *Popular Book Depot*, Lamington Road, Bombay, 7). 9½ x 7 in. Pp. 464 + xlviii. 75s.

COMPILED and edited under the direction of the Indian Pharmaceutical Association this—the second—edition incorporates the many changes that have taken place in the pharmaceutical industry since its predecessor appeared seven years ago. The directory section begins with a list of manufacturers, arranged State-wise—giving addresses, products manufactured and distributors, etc. There follows a list of manufacturers according to the types of products manufactured by them. The next section includes information on the distribution of drugs and chemicals, classified according to States and towns and lists of companies which supply basic drugs, chemicals, packing materials and laboratory equipment, each list being followed by a classified index. Subject and author indexes of papers published in the *Indian Journal of Pharmacy* during 1947-57 occupy a further fifty pages and there are two maps of India showing the distribution of indigenous medicinal plants.

A FORMULA FOR A CHLORAMPHENICOL CREAM

THE research staff of Dr. M. A. Phillips and Associates, Romford, Essex, after analysing a number of proprietary chloramphenicol creams, and after actual laboratory preparation, suggest the following as a suitable formulation for such a cream:—

Cetyl alcohol	12 parts by weight
Liquid paraffin	11 " " "
Sodium lauryl sulphate	1 " " "
Chloromycetin	1 " " "
Water	75-77 " " "

It may be taken that such formulations should include 0.1 per cent. of propyl p-hydroxybenzoate as preservative. To make up such a preparation:—

Melt the cetyl alcohol (12 parts) and warm to about 95° C. Add the sodium lauryl sulphate with stirring, then add 6 parts of water with continuous stirring and hold at 110° C. until frothing ceases. Cool to about 50° C., with stirring; add the liquid paraffin (11 parts) and the propyl p-hydroxy benzoate (Nipasol; 0.1 part); and finally stir-in a premixed solution of 1 part chloramphenicol, B.P., in 69 parts of water. Cool with stirring. All parts above are by weight.

SOME CONTRIBUTIONS OF PHARMACY TO PURE FOOD AND DRUGS

T. D. WHITTET, B.Sc., Ph.D., F.P.S., F.R.I.C., D.B.A.

(Concluded from THE CHEMIST AND DRUGGIST, October 1, p. 414)

WHEREAS the life and work of Fredrick Accum are well documented, little has been published about John Postgate, especially in his native England. He is not mentioned by Filby¹; Urdang¹²; Kremers and Urdang¹³; Jones²⁴; Drummond and Wilbraham²⁵; Grier²⁶; or Wootton²⁷, although a paragraph on him does appear in the Dictionary of National Biography. The only other reference the writer has found to his work is by Beeston in the *Food, Drug and Cosmetic Law Journal*²⁸, an American publication.

John Postgate was born in Yorkshire and left school at the age of eleven to enter the service of a firm of grocers and wine merchants. There he encountered the adulteration that was still prevalent despite the revelations of Accum, for one of the consequences of Accum's public disgrace had been a loss of confidence in his writings. Enemies of Accum did all in their power to foster the belief that he had grossly exaggerated the extent to which adulteration was practised and by 1824 the alarm had, according to Drummond and Wilbraham, almost died down. Postgate found the leaves of various British plants being added to tea; chicory and mustard to coffee; and lead salts to wine. Those callous and dangerous practices caused him to leave his post in disgust. He then became

apprenticed to a surgeon-apothecary in Scarborough and, remembering the adulteration of foods, proceeded to examine drugs for contamination. He found ample evidence of sophistication—scammony with chalk, sulphur with lime sulphate, etc. On completing his five years' apprenticeship, Postgate stayed on as an assistant until 1840 when, after studying at the Leeds School of Medicine, he was appointed assistant apothecary to Leeds Public Dispensary. There he continued his investigations into the quality of drugs and found that nearly all available on the market were impure.

In 1843 Postgate obtained the licentiatehip of the Society of Apothecaries of London and later became a Fellow of the Royal College of Surgeons. On finally settling in Birmingham in 1853 he devoted himself to the prevention of adulteration. Among his publications were "A Few Words on Adulteration" and "The Adulteration of Food, Drugs, etc., and the Mode of Prevention." Postgate found many instances of food adulteration in Birmingham. He investigated the circumstances in which a woman became violently ill after drinking coffee, and found a noxious substance present. Beeston²⁸ states that that discovery finally led Postgate to seek an Act of Parliament to prevent the adulteration of foods and drugs. His agitation, together with the campaign against adulteration carried out by the *Lancet*, resulted in the setting up in 1855 of a Select Parliamentary Committee on Adulteration. Postgate gave evidence before that committee on three occasions and presented to it a detailed scheme for the suppression of the evil. His scheme was incorporated in the report presented in 1856. Postgate's scheme included the first suggestion of the appointment of public analysts and of the introduction of severe penalties for food adulteration. The report showed that many foods and drugs were being deliberately adul-

terated, often with dangerously poisonous substances; it stated that adulteration existed to such an extent that "not only is public health endangered and pecuniary fraud committed on the whole community, but public morality is tainted and the high commercial character of the country is seriously lowered, both at home and in the eyes of foreign countries." Others who gave evidence included

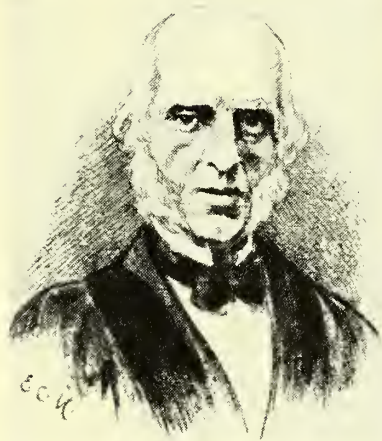
Professor Redwood of the Pharmaceutical Society's school of pharmacy; Richard Phillips, F.R.S., a distinguished pharmacist who had already in 1834 submitted a report to Parliament on the adulteration of drugs; Jacob Bell; Stafford Allen; Robert Warington, F.R.S. (chemical operator to the Society of Apothecaries); and Frederick Crace Calvert, F.R.S., a pharmaceutical manufacturer who wrote "Pharmacologia" and was one of the first to realise the significance of Pasteur's work on putrefaction in the preservation of foods. Stafford Allen, a nephew of Wm. Allen, F.R.S., was persuaded by his uncle to join him in leading a movement against the vested interests that encouraged the practice of food adulteration. He was the founder of Stafford Allen & Sons, Ltd. Calvert was a member of the British Pharmaceutical Conference.

Postgate now devoted much of his time to a campaign to bring the matter

to public attention. He organised meetings in all large towns and contacted Cabinet Ministers, members of Parliament, scientists, mayors of cities and towns and members of the medical profession. He also wrote frequently to the Press, and the following passage from a letter to the *Morning Herald* is reminiscent of the earlier comment of Accum: "A person guilty of a pernicious adulteration is a criminal, and should be dealt with accordingly, and the man who adulterates a drug, thereby endangering life, defeats justice if he escapes transportation."

In 1857, largely at Postgate's instigation, "a Bill for preventing the adulteration of food and drink" was brought before Parliament. After its first reading it encountered tremendous opposition and Beeston²⁸ records that, on the day appointed for the second reading, the House was crowded with traders who used such influence with members that the Bill received no support, and had to be withdrawn. Postgate persistently urged the question on both Lord Palmerston and Lord Derby with little success. He submitted no fewer than nine Bills to Parliament. In 1858, however, he was given a potent weapon through a tragic poisoning affair in Bradford. A druggist's boy was told to adulterate peppermint lozenges with plaster of Paris, and in error used white arsenic. About 400 people partook of the lozenges and seventeen died within a few days, whilst the rest suffered agonies. The storm aroused by that tragedy awakened the public conscience, and in 1860 the Act for Preventing the Adulteration of Food and Drink was passed. The Act, as the *C. & D.* commented editorially on September 24 (p. 375) was weak, but in 1868 it was extended to include medicines and in 1872 it was further amended and strengthened.

Postgate's twenty-five years of hard work and sacrifice received no official recognition, but he had the satisfaction



John Postgate, who for twenty-five years campaigned against the adulteration of food and drugs.

of knowing that his efforts had caused adulteration to become a criminal offence with severe penalties.

Postgate died on September 26, 1881. An obituary appeared in the *British Medical Journal* (1881, 2, 651).

A second Parliamentary committee presented its report in 1874. Among those who gave evidence before it were the pharmacists Michael Carteighe, C. W. Sandford, both former presidents of the Society, and A. H. Allen. The result was a new Act in 1875.

In 1874 the Society of Public Analysts was formed, with the pharmacist Professor Redwood as its first chairman. It was followed in 1877 by the Institute of Chemistry (now Royal). Pharmacists were among the founder members of both those organisations and have remained closely associated with them. The standard British textbook on food and drugs legislation, Bell's "Sale of Food and Drugs," was edited from 1910 to 1957 by R. A. Robinson, M.P.S. That the founders of the Pharmaceutical Society were aware of the problem of adulteration is shown by the following passage from the work of Jacob Bell, written in 1841, the year of the Society's foundation.²⁶

"In reviewing the history of pharmacy in all ages, we find that fraud has always prevailed to a remarkable extent in this kind of traffic (i.e., variations in the quality of drugs, and the sophistications to which they are liable) which circumstances may chiefly be attributed to the facility of eluding detection, but the imperfect acquaintance possessed by the public of the nature and properties of drugs only increases the responsibility of the druggist and demands the utmost vigilance. The detection of adulterations is, therefore, one of the most onerous duties of the pharmaceutical chemist, and it is one which requires, besides chemical knowledge, a practical acquaintance with the sensible properties of all substances used in medicine."

Among later important work undertaken by pharmacists was the analysis of the "patent" medicines included in the two books on "Secret Remedies" published by the British Medical Association. They were edited by E. F. Harrison, a famous pharmacist, later, as Lieutenant-Colonel Harrison, to be honoured with a C.M.G. for his services as Acting-Controller of the Department of Chemical Warfare, Ministry of Munitions. The Pharmaceutical Society was also a pioneer in the biological standardisation of drugs, and established one of the first laboratories for that purpose.

Sir Edward Frankland, who was apprenticed in pharmacy but later devoted his attention mainly to pure chemistry, though keeping his association with pharmacy as a member of the British Pharmaceutical Conference, laid the foundations of modern methods of water analysis. He also made the first attempt to ascertain the energy value of foodstuffs. B. J. F. Liverseege, Ph.C., F.R.I.C., became public analyst to the city of Birmingham and was the author of "Adulteration and Analysis of Foods and Drugs."

The Position Abroad

It was not only in Great Britain that apothecaries and pharmacists were the pioneers of food analysis. In view of their contributions to botany, agriculture, food chemistry and analysis, it is not surprising that several obtained leading official posts in the control of foods and drugs. The first chief of the Canadian Food and Drugs Administration, for example, was H. B. Evans, Liverpool, who had been educated at the college of the Pharmaceutical Society and was president of the Society, 1869-70.

In the United States the Philadelphia pharmacist who had been appointed assistant apothecary to the U.S. Army in 1814 published in 1823 his lectures on "Food Adulteration." In later years the pharmacist, L. F. Kebler, was for many years chief of the drug division of the Bureau of Chemistry, U.S. Department of Agriculture, and Government specialist in foods, drugs and cosmetics. He wrote several books on food and nutrition. In France, the pharmacists A. Bussy and A. F. Boutron-Charlard published in 1829 an alphabetically arranged book on the detection of the adulteration of drugs entitled "Traits des Moyens de reconnaître les Falsifications des Drogues simples et com-

posées." That was followed in 1850 by "Dictionnaire des Alterations et des Falsifications des Substances alimentaires, medicamenteuses et commerciales," written by the pharmacist J. B. A. Chevallier and regarded as one of the fundamental treatises in the field of food chemistry.

In Germany, the apothecary A. Dufles wrote in 1842 "Die wichtigsten Lebensbedürfnisse, ihre Aechtheit und Güte" (the most important necessities of life, their genuineness and quality). Urdang²⁷ states that that work was followed by a host of other books on food chemistry and that about 85 per cent. of all licensed German food chemists came from the ranks of pharmacy.

When the Prussian State Institute for Food, Drugs and Forensic Chemistry was established in 1917, a pharmacist, Adolph Juckenack, was made its first president. Pettenkofer, previously mentioned, and a colleague made the first scientific assessment of the energy requirements of the normal adult to be supplied by food.

Pottenkofer became apothecary to the King of Bavaria and first professor of hygiene to the University of Munich. Kremers and Urdang²⁸ refer to him as "the father of modern hygiene." Wilhelm C. Bötger, who started his career as a German pharmacist, was the pioneer of potentiometric volumetric analysis and did fundamental work in the application of physicochemical laws to analytical chemistry.²⁹

Food analysis (bromatology), phytopharmacy and agricultural chemistry remain also entirely the province of the pharmacist in France, Germany, Spain and Latin America. The head of the Indian Central Drug Research Institute, Lucknow, which is responsible for the purity of drugs, is Dr. B. Mukerji, who has a pharmaceutical qualification.

Food Firms Founded by Pharmacists

The education and training of the pharmacist obviously fits him for the preparation of food materials as well as medical products and it is easily to be understood that many food products were invented by pharmacists. Several important manufacturing concerns have a pharmaceutical origin. Many were described in an article "Pharmacy's Offspring" in *THE CHEMIST AND DRUGGIST* Annual Special Issue of 1936²⁹. The products include Bird's custard powder, Caley's chocolate, Eno's Fruit Salt, Lea & Perrins' Worcester sauce and Idris mineral waters. Bird, Caley, Lea, Perrins, and Idris were all pharmacists. The soft-drinks industry, of vast importance today both to the public health and to the economy, was introduced into the United States by the French pharmacist Elias Durand. The glucose drink Lucozade was launched by a Newcastle pharmacist, and several well-known invalid foods were invented by pharmacists—e.g., Benger's food, and Numol (a malt food introduced by Sidney Dunstan, chief pharmacist at the Royal Victoria Infirmary, Newcastle-on-Tyne, in 1908). Pharmaceutical firms were also pioneers of baby foods and similar products such as Ovaltine; prominent among them were Allen & Hanburys, Ltd., and Glaxo Laboratories, Ltd.; The Newcastle pharmacist George Weddell discovered that the addition of sodium phosphate to table salt would prevent it from being deliquescent and founded Cerebos, Ltd.

The pharmacist of today can justifiably be proud of the part his professional ancestors have played in safeguarding the public health.

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* This paragraph unfortunately appeared, in error, on p. 412, *C. & D.*, October 1.

BRITISH PHARMACEUTICAL CONFERENCE

Symposium on Chemical Disinfection

SUBJECT of the symposium session at the Newcastle-on-Tyne meeting of the British Pharmaceutical Conference recently was "Chemical Disinfection." Three papers were presented, the third in two parts written respectively by Dr. J. G. Davis and Dr. A. H. Walters but both put to the Conference by Dr. Walters.

The first paper taken was:—

Dynamics of Disinfection

S. E. JACOBS, D.SC., PH.D., A.R.C.S.

THE idea that the survival curves of bacterial populations exposed to lethal agents could be expressed adequately as straight lines by plotting the logarithm of the number, or the percentage, of survivors against time was put forward in 1907. Instances of deviation from the straight line were soon discovered, but they were usually explained away in terms of the presence of clumps of cells, or of populations of differing sensitivity in supposedly homogeneous initial populations. Not surprisingly attention was drawn to the similarity between the rate of a disinfection and that of a so-called unimolecular chemical reaction, to which the "logarithmic law" also applied. Inevitably the analogy was pushed to its logical conclusion that viable bacterial cells each contain a single molecule whose destruction or alteration results in the death of the cell. That idea was unsupported by direct evidence, and it always appeared unlikely that so great a diversity of chemical agents could all act on the one molecule. Modern knowledge of the mode of action of disinfectants has made the theory untenable. Studies by various workers have revealed a variation in type of response occurs when the rate of the reaction is altered by changing the concentration of disinfectant or the temperature at which it acts. With slower and slower reactions there is an increasingly prominent initial phase of relatively low death rate. Comprehensive data have been published for one system only, namely *E. coli* and phenol, but it is known that the action of o-cresol on *E. coli* follows a similar pattern. The establishment of disinfection curves calls for elaborate and time-consuming experiments, and the technique is not suitable for discovering how the behaviour of a disinfectant is affected by conditions in the environment. Rate of action may also be affected by such conditions as pH; concentration and kind of cations present; whether there is particulate matter in the environment; and the kind and amount of organic matter present. The way in which a bactericidal chemical is formulated may also alter its activity.

No One Test Adequate

The results will not be the same for any one chemical irrespective of the kind of organism used in the tests, nor can any useful assessment of the way in which a disinfectant will behave in practice be obtained from the

results of a single laboratory test. The action of the disinfectant must be studied under widely varied conditions and practical trials made. In some circumstances no proper understanding of what has happened in a culture exposed to a disinfectant can be reached unless the course of the reaction is followed in detail. Organic matter in the environment of bacteria may react with the disinfectant and reduce its concentration, or it may displace disinfectant from the cell surface or form a protective film. It may also serve as a source of nutrients and of energy, aiding the cell to maintain its structure and repair damage. That type of action could only be of significance if the conditions permitted metabolism for some of the cells. For that to be so the concentration of disinfectant would have to be small, as in experiments designed to determine the threshold concentration for phenol acting on standard cultures of *E. coli* at 35°C. Though the value obtained was unexpectedly small, support was afforded for a possible explanation because the full disinfection curves were determined.

Anomalies and Possible Explanations

In experiments described in the paper it was noted that cultures were notably more sensitive than expected at concentrations below 3.50 gm. per litre. There was also an increasingly wide divergence until suddenly, at 2.00 gm. per litre, sterilisation was not complete. Consideration of certain features of the disinfection curves leads to the conclusion that the experimental conditions had permitted growth to occur, with accompanying alterations in the sensitivities of varying proportions of the cells in the cultures. Evidently some cells of a culture can grow in presence of a concentration of phenol lethal to most cells. The increase in viable count was not extensive, and there were signs that it had reached its limit at about 20×10^6 cells per ml. A possible explanation is suggested by the fact that the increase in turbidity that occurred at that stage was much larger than the observed rise in viable cells could by itself have produced. It seems clear that many more cells must have been formed, but that they had been killed. Rapid death must have accompanied the multiplication stage, and it is possible that, had the experiment been continued, the viable count might have dropped again and even ultimately reached zero. That phenomenon has not previously been observed in the experiments on standard cultures. It seems logical to inquire whether multiplication may not also have been proceeding during the phase of continual decline in count. It is conceivable that, even if cells were not multiplying, they were repairing the damage caused by the phenol and so increasing their survival time. There are other indications of an abnormally increased sensitivity of the cells in the cultures in certain circumstances.

While no comprehensive explanation

of the experimental results can be offered, much of the behaviour of the cultures can be accounted for with the aid of two concepts: first that the inherent ability of a cell to withstand damage varies according to the stage it has reached in the division cycle, which implies that at a particular stage resistance is minimal; and second, that after fission in the presence of phenol the daughter cells are more susceptible than the parent. The first concept is difficult to reconcile with the occurrence of an almost straight-line relationship between log survivors and time, but that difficulty is absent where that relationship does not hold, as in the present work. The level of resistance at the minimum is considered to differ among the cells of a culture, and it may be supposed that some cells may always display a higher level of resistance than others at corresponding stages of the division cycle.

If nutrients are available during exposure, repair may be possible and survival prolonged and, if the supply is sufficiently large and the phenol concentration sufficiently low, growth may occur and the cell will proceed through the division cycle. According to the initial position of the cell in that cycle it may become either more or less resistant. If less, death may occur sooner than it might otherwise have done, and cells whose resistance was increased may succeed in dividing, only to be brought in their turn towards the condition of minimal resistance and to death. In that way an accumulation of food may not only accelerate death but induce multiplication followed by accelerated death. However, if daughter cells are always closely similar to their parents in resistance level, some cells of high resistance would be expected to survive in low phenol concentrations and continue to multiply until a new equilibrium with the food supply had been established. That did not occur in the present experiments. To account for the findings a progressive increase in inherent sensitivity following division of cells in the presence of phenol has been postulated.

Cultures Made More Sensitive

Whereas organic matter is known to protect bacteria against disinfectants, the experiments have shown that in certain circumstances utilisable organic matter may make a culture as a whole more sensitive. The experiments failed to fix the threshold concentration for phenol acting on *E. coli* at 35°C., because the conditions changed too greatly during the disinfections. It will probably be impossible to adjust the food supply exactly to the changing demands as cells are killed and by that means to make possible an accurate determination of the true threshold concentration.

(From the Bacteriological Laboratories, Imperial College of Science and Technology, London, S.W.7)

The title of the next paper read was:

Phenolic Disinfectants

A. M. COOK, B.PHARM., PH.D., DIP.BACT.,
F.P.S., F.R.I.C.

MANY adverse criticisms of the use of a phenol coefficient as a measure of bactericidal activity have been raised but these have had little effect within the field of commercial disinfectants. Far too much importance is still attached both by manufacturers and customers to the Rideal Walker, Chick Martin and Food and Drug Administration phenol coefficients. The tests used to ascertain those "coefficients" are all of the extinction type and use phenol as a reference substance. The variable factors are numerous. Some are controlled, often inadequately, by the specifications for the tests. Little or no replication is suggested in the specifications. In the design of the tests, and in the calculation of the phenol coefficients, no regard is paid to the assessment of extinction time data of the kind suggested by Mather, and the use of such tests for other than batch-to-batch control is fundamentally unsound.

Comparisons Difficult

Unfortunately the published results of the "evaluation" of phenolic disinfectants abound with "phenol coefficients" of which the conditions of determination are not stated. Thus it is difficult to draw conclusions from, or make comparisons between, the results from different laboratories. It would be fallacious to compare the bactericidal values of different phenols by comparing phenol coefficient values, especially where they were from different laboratories, but it is possible to note gross differences and trends.

When phenolic disinfectants are used in practice, those high dilution coefficients demand care not to dilute beyond an effective concentration.

Temperature. Bactericidal activity of phenols increases rapidly with increase in temperature. However, some strains of *Salmonella typhi* and *Staphylococcus aureus* are more resistant to phenol when the cells have been grown at higher temperatures, which means that a higher concentration of a phenolic disinfectant may be necessary to disinfect material contaminated by bacteria from human sources than material contaminated with soil organisms.

Hydrogen-ion concentration. In general phenols have greater antibacterial activity at an acid than at an alkaline pH. Recent work shows that diverse groups of bacteria can oxidise phenols under a variety of conditions.

Development of resistance to phenols. There are conflicting reports on the abilities of bacteria to acquire a resistance to phenols but the reported resistance was not great and was not retained for long periods in subcultures grown in the absence of the phenol.

Organic matter. It is well known that organic material can interfere with the antibacterial activities of phenols. The interference is stronger in some other kinds of disinfectant, for example the quaternary ammonium compounds. It also varies with different phenols and different kinds of organic matter.

Chemical nature of phenols. Dihydric and polyhydric phenols are generally less active than monohydric phenols.

Alkylation of monohydric phenols potentiates their activity. That effect is maximum where there are 5 carbon atoms in the substituent group.

A similar enhancing effect is produced by halogenation of phenols and increases with increasing atomic weight of the halogen; it is less in the *ortho* than the *para* position.

Increase in molecular weight of the phenol is usually accompanied by decrease in solubility, and that has led to the use of soaps in the formulation of phenolic disinfectants to bring insoluble phenols into solution.

Since the patent by Jeyes in 1877, soaps have been an almost constant feature in phenolic disinfectant formulas. The earliest pharmacopoeial formula was that of lysol in the 1914 B.P. Lysol is still widely used but the production of a standard poses a problem. The official monograph is so loosely drawn that variations in bactericidal power can occur that are too large for so important a preparation. The soap content plays an important part.

By raising the standard of the chemical and physical specifications of the cresol and the soap used in making lysols, more reproducible bactericidal values for the lysols would follow. It is recognised that a good standard lysol could be prepared from a pure *ortho*, *meta* or *para* cresol and a specified soap but such a lysol would have a poor reception in the economic field because of cost. Nevertheless there is room for a further effort either by the pharmacopoeial authorities or the trade itself to improve the standardisation of this important disinfectant, the use of which is on the increase.

Attempts at Explanation

Many attempts have been made to explain the effect of soap on the bactericidal activity of phenols, and results are still contradictory. Soaps exhibit the phenomenon of micelle formation. More information about the distribution of phenol between micelles and the surrounding medium should help to answer the problem, but a great deal of information is needed on the critical micellar concentrations of different soaps and the effects of added substances before true assessment of those disinfectants can be attempted.

Most commercially available phenolic disinfectants are coal-tar disinfectants. The aim of the manufacturer is to offer a concentrated solution that can be diluted for use. Since many of those

phenolic substances are insoluble, concentrated solutions must be formulated. That leads in turn to the main classes: (a) the clear fluids which, on dilution, give clear solutions or emulsions, and (b) the concentrated emulsions that are stable on dilution. The phenols which are used are classed as coal-tar derivatives. There are three main types of carbonisation of coal: low-temperature; with vertical retorts; and with horizontal retorts. Tars from the various methods are often mixed for distillation purposes. The high-boiling-point tar acids (HBTA) from vertical retort tars are used without treatment, but they often redden if no antioxidant is present in the formula and so give what is sometimes known as red-emulsion-type black fluids. The HBTA from horizontal retort tars give white-emulsion-type black fluids. The hydrocarbons from the horizontal retort tars are used as carriers in black fluids.

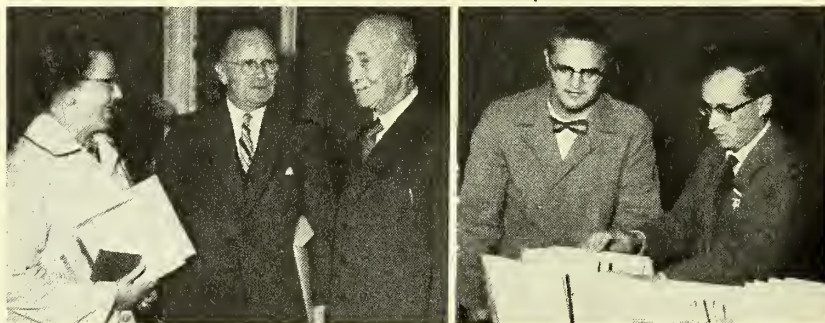
"Black" and "White" Fluids

Black fluids contain about 20 per cent. of water and are clear solutions of coal-tar phenols with hydrocarbon carriers solubilised by a suitable soap. Resin, castor oil, palm kernel, coconut, fish oil or naphthenic acid soaps are used. White fluids are concentrated emulsions of the phenols stabilised with protective colloids such as glue and contain 45 per cent. or more of water. Black fluids dilute to emulsions with soft waters, whereas white fluids dilute with hard or soft waters. Black fluids are more stable on storage. A black fluid made with the same phenolic fraction as a white fluid is more bactericidal.

Organic matter reduces the bactericidal activity (based on Chick Martin test) of all fluids but those based on HBTA and those with added carriers are most affected. The bactericidal power of lysol, which may be regarded as the simplest black fluid, varies with the soap used to formulate it. A point to remember is that soaps that give lower bactericidal activity usually give less opalescent solutions when the lysol is diluted.

Formulations of solutions of the chloroxylenol type may be regarded as special cases of black fluids, but the use of chlorinated phenols, whilst increasing the bactericidal power against some organisms, usually produces a narrower spectrum of activity.

There is little published information on the sporicidal activity of the phenols. It has been suggested that some bac-



At left, Dr. T. E. Wallis, London, chats with Mrs. and Mr. A. Shepherd (publisher, THE CHEMIST AND DRUGGIST); at right, Dr. J. V. Swintosky, United States, collects his papers from Mr. M. Clarke.

terial spores will survive for long periods in 5 per cent. phenol, but all attempts by the author to isolate such a spore have proved unsuccessful.

Phenolic, especially the coal-tar, disinfectants, are amongst the cheaper preparations, and having a broad spectrum may be recommended as good general disinfectants. But, because of their irritant properties, they should not be left in prolonged contact with the skin or mucous membranes. In most problems of cross-infection staphylococci are implicated and, because some results show chlorinated phenols and HBTAs as comparatively less effective against staphylococci than formulas based on unchlorinated phenols of lower boiling point, the latter should be used. Phenols, too, are less affected by organic matter than other types of disinfectant, and the soaps used in their formulation have detergent properties. Since it seems likely that phenolic disinfectants will retain their place as good general purpose disinfectants, continued research to elucidate the problem of soap-phenol solutions, their mode of action, and methods of evaluation are well justified.

(Reader in *Pharmaceutics*, School of Pharmacy, University of London, Brunswick Square, W.C.1)

The final paper to be presented at the session, both parts of which were read by Mr. A. H. Walters, was:—

Chemical Sterilisation—1

J. G. DAVIS, D.SC., PH.D., F.R.I.C.,
M.I.BIOL., F.R.S.H.

(Dr. J. G. Davis and Partners, London, W.1)

Of all sterilants commonly used in industry, chlorine or hypochlorite is the best from most points of view, being cheap, convenient to use, powerful and wide in its antibacterial spectrum. Its greatest disadvantages were corrosiveness and odour. The corrosiveness could be minimised by using it in cold solutions and at pH 9 or higher, but it is more bactericidal at neutral or acid reactions. Commercial preparations usually contain 9 to 12 per cent. and domestic preparations about 1 per cent. of available chlorine. Complete immersion in 150-200 parts per million of hypochlorite could sanitise clean metal and glass in two minutes; ten minutes gives an ample margin for sterility.

Next to hypochlorite the quaternary ammonium compounds are probably the most useful. They are convenient to use, of low toxicity to animals, without appreciable odour or taste, non-corrosive, and not too expensive. They are powerful against Gram-positive but nearly always less effective against Gram-negative organisms. They are incompatible with soaps and anionic detergents, but can be used with most alkalis and non-ionic detergents; alkalinity increased their bactericidal power. They are only weak detergents. Working concentrations vary from 1 in 1,000 to 1 in 200,000 according to compound used, temperature, time, alkalinity, and percentage kill desired. Weight for weight they are less effective than chlorine, but their other advantages could outweigh that fact.

Though generally regarded only as

detergents, caustic alkalis have a strong germicidal activity. Bottles emerging from a detergent section of a bottle washing machine are usually sterile or nearly so. Bactericidal effect falls rapidly with decreasing pH, and is influenced by the nature of the anion. Hot caustic soda solutions at 1-3 per cent. are specially useful for killing spores, an advantage claimed for the soaker type of bottle-washing machines.

Though useful as an antiseptic, iodine has disadvantages as a sterilant. It has a powerful odour, stains badly, is not very soluble in water, and is expensive. It is readily soluble in iodide solutions and in alcohol, but that method increases its cost, and the solution might be irritant to skin.

A Future for Iodophors

Iodophors would probably grow in popularity. They are prepared by the action of iodine on non-ionic detergents in acid solution, and have both detergent and sterilising properties.

The usefulness of the chlorphenols and related compounds is well established, but they have an odour and might be irritant. Chloramine-T does not suffer from those disadvantages, but is rather mild in action. Among interesting new compounds are dichlorocyanuric acid and dichlorodimethyl hydantoin, both, it is claimed, of low toxicity and non-irritant.

Dichlorophene is more effective against Gram-positive organisms and fungi than hexachlorophene. Both have become popular as antiseptics. Vigorous claims have been made for the efficiency and general suitability of chlorhexidine diacetate and the chlorxyleneols as antiseptics. Their odour makes this general group of substances unsuitable as sterilants.

The amphoteric or ampholytic compounds are mostly alkylated amino acids possessing amphoteric properties, for example dodecyl β -alanine. According to their sponsors they possess many advantages. Thus they are good wetting agents and fairly good emulsifiers. They are compatible with anionic, non-ionic and cationic agents.

Micro-organisms vary widely in their resistance to adverse conditions and to lethal agents. A good example is the difference between *N. gonorrhoea* and the spores of *B. subtilis*. The former quickly died outside the living animal; the latter might require 1 per cent. of NaOH for some minutes to achieve a 99.99 per cent. kill. Compared with other organisms *Mycobacterium tuberculosis* is highly resistant to most chemicals, especially acids, and yet is rapidly killed by direct sunlight and 70 per cent. ethanol. The quaternary ammonium compounds are effective against most Gram-positive bacteria but relatively feeble against the Gram-negative, and especially *Ps. pyocyanea*. Disinfectants could be highly specific in their action, and consideration must always be given to that fact in choosing a disinfectant.

Many factors influence the effectiveness of any one germicide for a given purpose. The most important are concentration, temperature, time of contact, pH, amount and type of organic matter, types of organism present, type

selected for assessment purposes, and physiological condition of organisms. It is unsound to make comparison between disinfectants. Just as it is essential to specify techniques in detail when evaluating disinfectants in the laboratory, so it is essential to specify practical conditions of use when comparing sterilants. The rating of a disinfectant for use as a rinse solution for beer glasses, might prove very different when used for pipelines in a dairy. The former must be used quickly in the cold at pH 6-8; the latter could be used for some time at a high temperature at any required pH value.

The commonest cause of failure to achieve sterility, or adequate cleansing, is generally the incomplete removal of organic matter, which could interfere in two ways. As a firm film on the object it can act as a barrier between cell and germicide. If it becomes detached and goes into colloidal solution or suspension in the disinfecting liquid it competes with the cells for the disinfectant and so reduced the concentration of disinfectant. Some types, for example the quaternary ammonium compounds, may be inactivated by chemical combination with anionic material, or by adsorption on suspended matter.

Smooth non-absorbent materials such as glass and stainless steel were easy to sterilise. Rough absorbent materials such as all animal and vegetable matter, rubber, plastics and textiles, are difficult if not impossible to sterilise. With them, sterilisation is entirely a matter of contact between sterilant and germ cell. If contact can be established by penetration or soaking, then sterilisation or cleansing is feasible.

An important lesson that has been learned by industry and manufacturers of food equipment is the necessity for a smooth finish to, and absence of crevices in, all items that come into contact with food.

Aspects to consider when using hypochlorite or other corrosive sterilants are, (i) to ensure a clean surface; (ii) to use the right concentration of available chlorine; (iii) to use cold or barely warm water; (iv) to use for the right time; (v) to rinse immediately with sterile water; and (vi) to sterilise just before use. The practice of leaving a closed-circuit system full of weak hypochlorite solution overnight is not necessarily wrong, but it must be carefully controlled. The equipment must be corrosion-resistant (stainless steel or glass) and the solution weak, alkaline and cold.

Methods of sterilisation are sometimes condemned after tests on the product or on the equipment, when the real cause of failure is recontamination. This is particularly true in bottle washing. Manufacturers and users of bottle-washing machines sometimes failed to recognise that, though their detergent section efficiently cleans and sterilises the bottles, they were being immediately sprayed with a warm rinse having the bacteriological properties of sewage. Constant bacteriological control of rinse tanks is essential, and the count should never rise above 1,000 per mil.

For many years hot water and steam

had been the only permitted means of sterilising equipment, but chemical sterilisation is today almost universal in the dairy industry, though only approved sterilants may be used. Hypochlorites and quaternary ammonium compounds are the commonest but iodophors are being introduced. The ubiquitous use of chlorine, and of acids for descaling and in-place cleaning has been made possible only by the now almost universal adoption of stainless steel for all dairy equipment, apart from glass and plastic for certain types of pipelines.

The brewing industry has two important advantages over dairying. Its processes are not controlled by specific legislation, and beer might rightly be regarded as a mild antiseptic. Caustic soda and hot water and steam had for long been the classical cleaning agents in the industry. Copper equipment is still common, and corrosive sterilants are therefore out of the question.

With reasonable care it is easy to cleanse bottles using mechanical washers. Efficient pre-rinsing and jetting (or soaking and jetting) with detergent solution at the right temperature are more important than the selection of any one detergent. The pharmacist washing bottles by hand may with advantage use a germicidal detergent. Recontamination is the greatest danger. Provided that the bottle is efficiently treated, the presence of foreign objects and impervious matter such as concrete or paint did not constitute a public health hazard.

The best way of ensuring a "clean atmosphere" is efficient air conditioning incorporating bacterial filters. Aerosol disinfectants have been accepted as the best "chemical" method of disinfecting air, but there is a natural prejudice against breathing even minute quantities of chemicals. Where a room or chamber can be sealed, formalin vapour is probably still the best, especially for efficiency and cheapness. Ethylene oxide and, in the United States, β -propiolactone, have been used successfully. In all vapour methods the relative humidity is an important factor. It should be at least 70 per cent. Blankets, sheets, pillowcases, baby napkins and similar articles each present a special problem varying with size, thickness, and nature of material. Penetration is essential, and drastic treatment might harm or shrink the fabric. "Boiling," the classical procedure, could be undesirable because of the odours and water vapour produced, and is a cumbersome procedure for large articles. That is a field in which chemical sterilisation can be used with advantage. Provided a proper procedure is adopted effective sterilisation can be achieved. Quaternary ammonium compounds are commonly used for the purpose, but their ready absorbability introduced special problems.

Chemical Sterilisation—2 (Hospitals)

A. H. WALTERS, F.I.M.T.L., M.I.BIOL.,
M.R.S.H.

(Diversey Deosan Research Laboratories, 42 Weymouth Street, London, W.1)
CHEMICAL disinfection of surfaces in

hospitals falls into two main parts applied (i) to the patient and staff and (ii) to the environment in which the patient is nursed.

Skin Disinfection

In the first category perhaps the most important aspect concerns disinfection of skin. It is now generally recognised that the skin carries its own resident bacteriological flora, and the organisms are ducted to the surface of the skin when wet. Hence skin surface disinfection must take into account not only superimposed infection but also repeated contamination from its own resident flora. To meet that problem new disinfectant soaps containing ampholytes and silver germicides have been described, as have creams containing 3 per cent. of hexachlorophene, solutions of alcoholic acrizine, 2 per cent. iodine, chlorhexidine and hexachlorophene. One worker observed that chlorhexidine, CTAB 1 per cent., and chloramines 0.4 per cent., appear satisfactory skin sanitisers, but notes that chlorhexidines diacetate is precipitated and inactivated by 0.9 per cent. salt solution and by urine. A spray containing tetramethylthiuramdisulphide intended as a disinfectant plastic seal for the skin is being investigated at the present time.

Disinfection in the environment in which the patient is nursed concerns instruments and utensils, and general cleaning and disinfection.

INSTRUMENTS.—Interest in spore control is centred on new compounds such as 1:3 dichloro 5:5 dimethylhydantoin; organic chlorine compounds containing di and trichloroisocyanuric acid having activity against both Gram-positive and Gram-negative organisms; and sodium p-toluene sulphochloramide and 5 per cent. phenol with 12 per cent. salt. Such compounds have yet to come into wide use. For clinical thermometers 10 per cent. formalin and 1 per cent. benzalkonium chloride have found some favour, but the individual dry thermometer is most satisfactory.

GASSING.—Gaseous formaldehyde is still widely used for textiles, and ethylene oxide is efficient for sterilising heart-lung machines, but care must be taken regarding humidity. One series of tests has indicated that beta-propiolactone vapour may be far more active than either formaldehyde or ethylene oxide.

Disinfection methods in United Kingdom hospitals may vary considerably with varying results. It is difficult to estimate disinfectant activity and efficiency where uncertainty may exist concerning concentration, immersion time, condition of object to be disinfected, frequency of use, and time elapsing between renewal of solutions.

There is growing evidence that poor housekeeping techniques may contribute to hospital acquired infections. The main difficulty is instituting suitable techniques and maintaining them. Cleaning is obviously linked to disinfection, and various techniques have been reported using detergent-steriliser formulations. Hexachlorophene and chlorine are still best for disinfection of bath water and surfaces.

To standardise environmental sanitation methods in any given hospital,

the author has devised a "zone" system based on dividing a hospital into convenient cleaning and disinfection zones, in which every aspect of the local problem, including bacteriological, can be studied. Hospital wards fall naturally into three zones: nursing, lavage and food zones. The nursing zone includes the bed space area and dressing preparation rooms, in which cleaning routines and disinfectants can be grouped together. The lavage zone (proposed composite term) includes sluices, bathrooms, lavatories, and, where present, dirty-linen disposal rooms. The food zone comprises the ward kitchen and the problems associated with routing, cleaning and disinfection of food-carrying and eating utensils. Cleaning and disinfection routines common to all zones include walls, floors and surfaces. Dustmaking activities need special study.

Cleaning and disinfection problems can be studied jointly in each zone, resulting in better understanding of the tasks involved in any set of circumstances, and leading to some standardisation of materials and methods. A disinfectant routine depends on staff efficiency.

Discussion

Discussion at the symposium session was opened by Mr. GEORGE SYKES, Nottingham, who first complimented Dr. Jacobs on "one of his usual erudite papers." The symposium emphasised, he said, one of the difficulties of determining disinfectant activity, namely that one was dealing with a heterogeneous bacterial population but were only interested in a small proportion of them—those with the highest resistance. Jacobs had been fortunate in establishing an organism with a "pretty standard" resistance. His method was difficult to apply on a day-to-day basis. There was always a stage at which it was doubtful whether an organism would survive or not. He asked whether Dr. Jacobs had considered whether lysis of the existing bacterial population was not providing a more suitable nutrient medium (a "pre-digested" nutrient) than the one that was being added. He also queried the paradox of Dr. Jacobs's observation that organisms growing in adverse conditions were showing a lower resistance to phenols. Ordinary bacteriological experience would have suggested that they would develop a higher resistance. Mr. Sykes said that Dr. Cook had criticised the official test method, which had been unchanged for fifty years. The reason was that the responsible committee, of which he (Mr. Sykes) had been a member for thirty years, had been unable to devise a test to replace it. Dr. Cook might be comforted that at last the committee was considering the statistical aspect, and that the result might be a revision in the direction Dr. Cook wanted. Shortly an official test was being published as a British Standard, using *Staphylococcus aureus* as a test organism. There was a view in some quarters that phenol should be dropped as the basis of a coefficient, and kept perhaps only as a means of standardising an organism. It might be possible to base a coefficient on a dilution at

which an organism responded and use a fixed correction factor. That would remove one of the arguments against the standard test. Like Dr. Cook he deplored the substitution of chloroxylenol for lysol in the B.P., but who had been responsible for that? In his view the chloroxylenol preparations should be reserved to their original purpose of skin disinfection against streptococcus. It had the advantage of retaining its activity on the skin. He would prefer to shorten Mr. Walters' long list of disinfectant products to alcohol, iodine, chloramine and perhaps the quaternary compounds, but not soaps. Added chemical ingredients in a soap gave in his view no additional sterile properties. Among gaseous disinfectants formaldehyde had a low penetration into materials. Ethylene oxide was effective. Meta propyl lactone had disadvantages. Mr. Sykes said it was a pity that there had been no paper on the uses and misuses of disinfectants. There was a tendency to introduce complications unnecessarily. A decision should be arrived at in each set of circumstances enumerating the advantages and disadvantages of each product.

In his reply to Mr. Sykes, Dr. Jacobs said it was true that lysed bacteria would provide nutriment for live organisms, but the quantities released must be small in proportion to the automatically added nutrients. The second concept mentioned by Mr. Sykes was that of adaptation leading to higher rather than lower resistance. That was ordinarily so, but it had always been found difficult to train organisms resistant to phenols. In all concentrations down to 2.5 gm. per litre he had found no adaptation—the cultures had become fully sterile. At 2 gm. per litre not enough work had been done to enable him to say categorically that there was no adaptation by the organism.

A Cool Reception and Cold Comfort

Dr. Cook's reply revealed that the statistical approach had had a cool reception in the disinfectant committee, of which he had himself been a member for ten years, but was glad to note that it had been referred to a sub-committee under Mr. Sykes's chairmanship. He derived little comfort from the proposed British Standard mentioned by Mr. Sykes. It added another test organism governed by an extinction-time test and could become the thin end of the wedge of using the test as an evaluation instead of as a batch standardisation. The Rideal-Walker test was basically a biological assay. Phenol was a poor standard when applied to disinfectants of a different action. Dr. Cook mentioned that some proprietary disinfectants now contained dichloroxylenol, which his observations confirmed were active against staphylococcus, though the product still had no effect against pseudomonas.

Mr. Walters accused Mr. Sykes of having missed the point of his paper which was that cleaning was indissolubly linked with disinfection in environmental sanitation. Whether soap was a "good" antiseptic depended on what was meant by good, but, after scrubbing, finger pads even revealed staphylococcus and other organisms. So

could scrubbed teats of cows. In one London hospital scrubbing had been abandoned. They had learnt that "dry, clean hands do not transmit infection—wet ones can." He thought he saw signs in his audience of a "pseudomania." For real progress to be made in disinfection it was necessary to understand the problems of people working in actual conditions. "What," he asked Mr. Sykes, "is hot water."

Problem of Sterilising Plastics

Mr. J. W. B. FISH, Dover, asked if there were any information on the cleansing and sterilising of plastic surfaces and how one should clean and sterilise a 5-gall. polythene bottle.

Dr. J. C. PARKINSON, Brighton, wanted to know if the threshold values had been ascertained for temperatures other than 35°. Work at Brighton confirmed that the organisms had to divide first before phenol became effective. They had also found that the addition of phenol to suspension of bacteria in water had increased the turbidity of the suspension.

Dr. G. F. SOMERS said it was well known that antibiotics gave peak concentrations in blood and were effective. That was believed due to the fact that, during the declining level of concentration of the antibiotic, the organism developed an increased susceptibility to the next dose of antibiotic.

Mr. WALTERS suggested that it was necessary to check the condition of plastic surfaces before treatment, and recommended cleaning with a liquid detergent, rinsing, then immersing in 100 parts per million of chlorine for one hour.

Dr. JACOBS, answering Dr. PARKINSON, said that the indications were that the higher the temperature the lower the threshold concentration. The remarks of both Dr. Parkinson and Dr. Somers that an organism had to be growing to be killed confirmed his own interpretation of his work. The increase in the turbidity of a culture to which phenol was added was the result of the phenol combining the cell protein. He wished, however, to point out that in his work the concentration of the phenol was uniform.

Dr. T. D. WHITTET believed many nurses judged disinfectants by smell, the pharmacists could do much more to educate people in such matters. Lysol was no longer used at University College Hospital, a proprietary hyperphenol had taken its place and he made a plea for an open name for the compound. No mention had been made of antifungal compounds. They had found at his hospital that hypochlorites did not cope with the organisms causing thrush, and they had ceased to use that technique for feeding bottles. He also pointed out that the organisms of gas gangrene had been found in tap water.

Mr. J. A. MYERS, Edinburgh, said that hexachlorophene had only limited action against bacteria, yet it appeared to be increasingly used in creams and soaps for pre-surgical use. He asked the speakers to specify disinfectants by name. He considered the introduction of β propiolactone in a hospital to be asking for trouble.

Mr. R. L. STEPHENS, Rugby, did not want a purist formula for lysol. That would merely be uneconomic. He made a plea that the fatty acid reference should be left, as at present, except perhaps in respect of fish fatty acids.

Mr. J. C. HANBURY referred to the revision of the B.P. and asked if the speakers considered the terms bacteriostat and bacteriostatic sufficiently precise.

A Change of Emphasis

Mr. E. A. CROSS, Croydon, said that his hospital group were now turning their attention to organising the cleaning processes rather than installing elaborate sterilising departments. They were also trying to reduce the number of antiseptics used in their hospitals.

Dr. H. S. BEAN, London, said that he had conducted a series of experiments like that described by Dr. Jacobs except that the nutrients had not been replaced. He had assumed that the cell exudate was contributing to the growth of the organisms, and his observations had led him to believe that the concentration of the bactericide on the cell surface was the key to its effect.

For eight phenols he had been able to calculate that concentration in the aqueous medium which brought about saturation at the cell surface. Experimental work had shown that the bactericidal effect of those compounds was indeed related to the concentration on the cell surface. That, he claimed, pointed the way to a method of comparing the activities of phenolic bactericides much more rapid and reliable than the Rideal-Walker method.

Commenting on Dr. Bean's contribution, Dr. JACOBS pointed out that the ability to saturate a cell surface depended on the nature of substances present in the environment.

He reminded Mr. Hanbury that many bacteriologists held that true bacteriostasis—with organisms neither growing nor dying—was not possible. The name "bacteriofreeze" had been suggested.

Dr. Cook, in his reply, assured Mr. Cross that he had been unable to grow spores in a medium containing 5 per cent of phenol. He urged Dr. Bean to distinguish between "exudate" and "eluate," which referred respectively to products derived from living and dead material, and he told Dr. Whittet that manufacturers' figures showed a continuing increase in the use of lysol. To Dr. Stephens he emphasised that the soap in lysol played a significant rôle. It would even be better, he suggested, for lysol to be omitted from the B.P. than for it to be ill-defined there. The pharmacopœial use of the word "bacteriostat" was wrong. He suggested to Mr. Myers that the hexachlorophene he mentioned might possibly have been solubilised.

Mr. WALTERS, replying to Dr. Bean, said that the bactericidal activity of a compound could be increased by wetting the cell surface through increasing the concentration of surface-active agents in the medium. To Dr. Whittet he said that the effect of hypochlorite depended on time and temperature, and suggested to Mr. Myers that the best four bactericides should be decided by a committee.

CUMULATIVE LIST OF AMENDMENTS TO THE C. & D. Quarterly Price List, September 1

● THIS WEEK'S CHANGES ARE GIVEN SEPARATELY AT END

A. & P. (104 BP)										Blacfrutex (1351 WLU) ..									
infants' powders .. 15 0 3 9 1 11										cough linctus .. 11 3 2 9½ 1 10									
Actifed (208 BW) tablets 500 1040 0 .. 130 0 ts7										17 5 4 4½ 2 9									
Adcortyl-A (1176 Squibb)										B-R (1023 Radiol)									
ointment .. 50 gm 31 9ea .. 47 7½ TS										healing jelly .. 2 oz 22 6 5 7½ 3 0									
with Graneodin 50 gm 35 6ea .. 53 3 TS										Bronnley (194 Bronnley)									
Aldactone (1121 Searle)										after shave cream .. 209 33 0 16 1 5 9									
tablets 100 mgm .. 20 61 8ea .. 92 6										lotion 2½ oz .. 201/2 25 3 12 3 4 3									
100 289 10ea .. 434 9										5 oz .. 201 45 6 22 2 7 6									
Aldis (884 NB) beaded screen										baby lotion .. 2700 20 6 5 0 3 0									
"Square 40" .. 119 6										cream 2 oz .. 272 17 0 4 2 2 6									
"Square 50" .. 159 6										powder 3 oz .. 770 17 0 4 2 2 6									
Aldocorten (262 CIBA)										bath crystals 2 lb .. 400/2 44 6 21 9 7 6									
ampoules 1 mil 27 4ea .. 41 0TS										4 lb 400/4 75 6 36 10 12 9									
Allercur (1107 SAGB)										salts apothecary jar 436 51 0 24 11 6 6									
(distributors 973 Pharmchemicals)										bay rum 2½ oz .. 207/2 22 3 10 9 4 2									
tablets 20 mgm .. 20 2 5½ea .. 3 6 ts7										5 oz .. 207 34 6 16 10 6 3									
Amphetamine (1348 JW)										beauty Cologne									
10 oz 60 0 ..										2½ oz .. 1027/80 54 0 26 4 9 6									
20 oz 108 0 ..										5 oz .. 1027/81 76 0 39 0 13 6									
40 oz 16 0ea ..										bath essence									
80 oz 28 6ea ..										2½ oz .. 1027/82 54 0 26 4 9 6									
Andre Philippe (48 AP)										5 oz .. 1027/83 76 0 37 0 13 6									
eau de cologne/lavender 18 9 0 4 6 1 6										hand lotion 5 oz 1027/84 39 6 18 9 7 0									
men's roll-on deodorant 104 16 10 4 2½ 2 6										talcum powder 1027/85 24 6 12 0 4 3									
perfume story book .. XI 18 0 9 0 3 0										bath cubes (6) 1027/86 28 6 13 11 5 0									
Angel Touch (256 CPL)										(12) 1027/89 54 0 26 4 9 0									
tube 17 4 8 8 2 9										brilliantine 2½ oz 206/2 22 3 10 9 4 2									
bottle 23 8 11 10 3 9										5 oz .. 206 34 6 16 10 6 3									
tube 19 0 9 6 3 0										honey and flowers									
Antilope (Weill) (960 ADP)										2½ oz .. 208/2 22 3 10 9 4 2									
eau parfume .. 2 oz 080 9 6ea 4 7½ea19 6										5 oz .. 208 34 6 16 10 6 3									
4 oz 081 16 6ea 8 0½ea33 6										original oatmeal cream 253/1 18 6 9 0 3 3									
8 oz 082 26 3ea 12 9½ea52 6										253/2 38 0 18 6 6 6									
16 oz 083 46 3ea 22 6ea 92 6										pine bath cubes (6) 2022/6 19 0 4 3 3 3									
perfume handbag .. 017 7 9ea 3 9ea 16 0										essence 10 oz .. 902 56 9 29 8 9 6									
½ oz 016 14 9ea 7 2ea 30 0										pre-electric shave lotion									
½ oz 015 26 3ea 12 9½ea53 0										200/2 25 3 12 3 4 3									
1 oz 014 42 0ea 20 6ea 65 0										200 45 6 22 2 7 6									
2 oz 013 75 0ea 36 6ea150 0										205 58 0 14 2 6 6									
handbag coffret .. SE 15 9ea 7 8ea 32 0										205/R 34 0 8 3 5 0									
diffusette .. ½ oz 016D 17 6ea 8 6ea 35 0										2304 20 0 4 11 2 9									
½ oz 015D 29 0ea 14 2ea 56 0										2304/R 10 3 2 6 1 6									
refill .. ½ oz 015R 26 0ea 12 8ea 52 6										soap									
4 oz 012 135 0ea 65 10ea270 0										baby toilet (3) .. 1030 41 0 10 0 6 0									
de luxe bottle in coffret 1 oz 90 0ea 43 10ea160 0										bath ball .. 1008 57 0 13 8 6 6									
"Secret de Venus" bath oil										beauty visitors (6) 1027/V 42 0 10 6 6 6									
½ oz 060B 20 9ea 10 1ea 42 0										toilet 1027/T 10 6 2 7 1 6									
1 oz 061 37 6ea 18 3ea 75 0										bath 1027/8 20 0 4 11 3 0									
2 oz 062 67 6ea 32 11ea135 0										colossal .. 1027/C 51 6 12 7 6 0									
4 oz 063 127 6ea 62 2ea255 0										lemon toilet .. 601 11 6 2 10 1 9									
bobline .. 1 060 4 3ea 0 0½ea 6 6										bath .. 601/B 21 8 5 3 3 3									
boblines .. 12 060 50 0ea 24 4½ea102 0										visitors 601/V 7 3 1 9 1 1									
Aramine (837 MSD) 1 mil 12 20 0ea .. 30 0										marbles (34) .. 434 49 0 11 11 7 6									
10 mils 14 0ea .. 21 0										melon 608/R 110 0 26 10 16 0									
Arrid (1003 PP)										men's toilet (3) .. 204 46 0 11 3 6 9									
roll-on refill .. 27 0 6 9 3 6										original round bath									
Asmapax (70 Aspro) .. 250 420 0 .. 52 6 ts4B										1007/3 23 0 5 7 3 9									
Azymil (176 BCLo)										pine toilet 3 oz .. 650 10 6 2 7 1 6									
capsules .. 30 49 6 .. 6 9										bath 6 oz .. 651 18 6 4 6 2 9									
Baghari (Piguet (1201 Supervite))										pre-make-up .. 1052 11 6 2 7 1 9									
bath oil ½ oz 13 0ea 6 6ea 26 9										Scotch heather (3) .. 1055 49 0 12 2 7 6									
Balto (727 Lane)										"sea shell" guest .. 435 57 0 13 8 8 6									
foot balm .. 1½ oz 17 11 4 6 2 6										"shell" (3) .. 1050 39 6 7 5 4 6									
2 oz ..										turtle oil toilet 604/T 8 7 2 1 3 3									
Bandit (Piguet (1201 Supervite))										bath 604/B 15 0 3 2 2 2									
bath oil ½ oz 13 0ea 6 6ea 26 9										sun-tan lotion .. 2521 28 0 13 11 4 9									
Barbevite (1348 JW)										oil .. 2522 21 0 10 3 3 6									
.. 5 oz 48 0 .. ts1s4A										talcum powder .. 2711 34 6 16 10 5 9									
20 oz 15 0ea .. ts1s4A										mens .. 203 26 0 12 8 4 6									
80 oz 53 0ea .. ts1s4A										turtle oil									
Barbidex (70 Aspro)										talcum powder .. 605 21 0 9 6 3 6									
.. 30 42 0 .. 5 3 ts1s4A										bath cubes (6) .. 606 19 6 9 6 3 3									
250 294 0 .. 36 9 ts1s4A										(12) .. 607 33 0 16 0 5 6									
Basket of Flowers (1070 Windsor)										Brontyl (769 LH)									
toilet soap .. 2112 58 0 13 9 7										ampoules 2 mils .. 5 60 0 .. 7 6									
gross gross										Calypso (Piguet (1201Supervite))									
Beauti-Lash (385 DG)										bath oil .. ½ oz 13 0ea 6 6ea 26 9									
mascara applicator .. 75 0 37 6 12 6										Cambison (614 Hoechst)									
refill .. 46 0 23 0 7 9										(distributors 621 Horlicks)									
Becomet (324 Crookes) elixir										5 gm 40 0 .. 5 0 TS									
4 oz 26 0 .. 3 3										ointment 0-25% 20 gm 128 0 .. 16 0 TS									
8 oz 40 0 .. 5 0										5 gm 64 0 .. 6 0 TS									
80 oz 360 0 .. 45 0										20 gm 204 0 .. 25 0 TS									
Becosym (1074 Roche)										Cassandra (Weill) (960 ADP)									
with B12 ampoules .. 6 84 0 .. 10 6										eau parfume .. 2 oz 080 9 6ea 4 7½ea19 6									
50 480 0 .. 60 0										4 oz 081 16 6ea 8 0½ea33 6									
Beecham's (104 BP)										8 oz 082 26 3ea 12 9½ea52 6									
pills .. 15 0 3 9 1 11										16 oz 083 46 3ea 22 6ea 92 6									
.. 33 0 8 3 4 3										perfume handbag									
powders .. 15 0 3 9 1 11										.. 017 7 9ea 3 9ea 16 0									
.. 31 2 7 9½ 4 0										½ oz 016 14 9ea 7 2ea 30 0									
107 0 26 9 3										½ oz 015 26 3ea 12 9½ea53 0									
tablets .. doz 60's doz 60's 15 0 3 9 1 11										1 oz 014 42 0ea 20 6ea 65 0									
.. 31 2 7 9½ 4 0										2 oz 013 75 0ea 36 6ea150 0									
Benerva (1074 Roche)										.. SE 15 9ea 7 8ea 32 0									
tablets 300 mgm .. 25 100 0 .. 12 6										Carters (1003 PP)									
100 300 0 .. 37 6										little liver pills .. 36 14 5 3 7½ 1 11									
Better Off (385 DG)										100 35 9 8 11½ 4 9									
for the face .. 66 0 33 0 11 0										Cassandra (Weill) (960 ADP)									
for the legs .. 54 0 27 0 9 0										eau parfume .. 2 oz 080 9 6ea 4 7½ea19 6									
Blotrase (769 LH)										4 oz 081 16 6ea 8 0½ea33 6									
35 gm 45 0 11 3 6 0										8 oz 082 26 3ea 12 9½ea52 6									

"Secret de Venus" bath oil									
1 oz 060B	20	9ea	10	1ea	42	0			
1 oz 061	37	6ea	18	3ea	75	0			
2 oz 062	67	6ea	32	11ea	135	0			
4 oz 063	127	6ea	62	2ea	255	0			
boblne .. single	060	4	3ea	2	0ea	6	6		
boblne .. 12	060	50	0ea	24	4ea	102	0		
Cassells (Dr.) (104 BP)									
tablets ..	18	4	..	..	1	11			
	40	9	..	..	4	3			
Celrite (315 Crater)									
electric blanket control	..	..	..	..	8	9			
with neon ..	..	..	..	..	10	6			
Ceotherm (315 Crater)									
electric blanket control	..	..	..	..	29	6			
Colbenin (1393 BRL)									
vials 1 gm ..	5	65	0ea	..	97	6	TS		
	25	325	0ea	..	487	6	TS		
	100	1300	0ea	..	1950	0	TS		
Cophos (104 BP)									
powders ..	15	0	3	9	1	11			
	31	2	7	9½	4	0			
	107	0	26	9	3				
doz 60's	195	0	48	9	3				
doz 120's	15	0	3	9	1	11			
tablets ..	31	2	7	9½	4	0			
	170	2	42	6½	6				
doz 48's	170	2	42	6½	6				
Check (665 JS) cream									
spray ..	271	14	0	3	5	2	0		
	269	22	8	11	0	3	9		
Chesties (1215 Teasdale)									
5 lb	3	4	11½	6					
Chilton (257 Chilton)									
Sportsman electric shaver	..	..	..	..	57	6			
Acculux rechargeable torch	..	..	..	..	42	0			
illuminated magnifier	..	..	..	..	12	4			
angle holder	..	..	..	..	10	0			
Accuflash ..	..	..	..	..	54	9			
equipment bag for photoflash	..	..	..	..	6	3			
thread counter	..	..	..	..	6	0			
screen plate	..	..	..	..	12	6			
throat spatula kit with stand	..	..	..	..	15	0			
dental kit with stand	..	..	..	..	13	6			
otoscope ..	..	..	..	..	113	4			
adaptor ..	..	..	..	..	16	8			
reading lens ..	..	..	..	..	20	6			
circuit tester	..	..	..	..	24	0			
spy light ..	..	..	..	..	28	6			
spare bulb ..	..	..	..	..	11				
charging adaptor ..	..	..	..	..	2	3			
Chinchilla (Weil) (960 ADP)									
eau parfume ..	2 oz 080	9	6ea	4	7½ea	19	6		
	4 oz 081	16	6ea	8	0ea	33	6		
	8 oz 082	26	3ea	12	9½ea	52	6		
	16 oz 083	46	3ea	22	6ea	92	6		
perfume handbag ..	017	7	9ea	3	9ea	16	0		
	1 oz 016	14	9ea	7	2ea	30	0		
	1 oz 015	26	3ea	12	9½ea	53	0		
	1 oz 014	42	0ea	20	6ea	85	0		
	2 oz 013	75	0ea	36	6ea	150	0		
handbag coffret ..	SE	15	9ea	7	8ea	32	0		
"Secret de Venus" bath oil									
1 oz 060B	20	9ea	10	1ea	42	0			
1 oz 061	37	6ea	18	3ea	75	0			
2 oz 062	67	6ea	32	11ea	135	0			
4 oz 063	127	6ea	62	2ea	255	0			
boblne .. single	060	4	3ea	2	0ea	6	6		
boblne .. 12	060	50	0ea	24	4ea	102	0		
Colchicine (292 C)									
tablets ..	dp 400	227	4	..	..	..	7	7	
	dp 1000	575	4	..	..	..	..	7	
Coldrex (976 PS&T)									
..	24	41	8	10	5	5	6		
Comba-Curler (888 Newey)									
10	3	2	6½	1	6				
Conotrans (1305 WB)									
silicone cream ..	60 gm	60	0	..	..	7	6		
	200 gm	144	0	..	..	16	0		
	500 gm	25	0ea	..	..	37	6		
Corangil (37 Allied)									
tablets ..	50	8	3ea	..	12	4	7	1	
	250	35	10ea	..	53	9	7	1	
	1000	129	6ea	..	194	3	7	1	
Cravens (316 Craven)									
best barley sugar	.. 5 lb	13	4ea	..	10	qtr			
best English mints	.. 5 lb	11	10½ea	..	9	qtr			
blackcurrant aniseed	.. 5 lb	14	2ea	..	10½	qtr			
blackcurrant pastilles	.. 1 lb	10	3	..	1	0	qtr		
	.. 6 lb	19	8ea	..	1	0	qtr		
Blix licorice pastilles	.. 6 lb	16	0ea	..	10	qtr			
crystal mints ..	.. 4 lb	10	8ea	..	10	qtr			
glucose lemon barley	.. 5 lb	11	10½ea	..	9	qtr			
menthol and	..	..	..	..	..	..	..	..	
eucalyptus BPC ..	5 lb	16	5ea	..	1	0	qtr		
Crookes (324 Crookes) B-complex elixir all sizes									
Cuir de Russie (247 Chancel)									
soap toilet ..	..	20	8	5	2	3	0		
bath ..	..	37	10	9	6	5	6		
talcum ..	6902	6	2ea	3	1ea	13	0		
Cumfy-Socks (1075 R)									
15	0	9	1	11					
Cussons (388 Cussons)									
Imperial leather hair cream	..	..	..	..	..	..	..	..	
5480	14	0	6	10	2	6			
Cutipen (327 WC)	..	19	0	9	6	3	3		
refill ..	..	10	6	5	3	1	9		
Daranide (837 MSD)									
tablets 50 mgm	.. 100	40	0ea	..	60	0			
Dascote (1262 UL)									
16	28								

Decadron (837 MSD)									
tablets enteric coated	100	792	0	..	..	99	0		
0.5 mgm	500	3774	0	..	..	471	9		
Deep (102 CB) treatment shampoo									
tube	48	0	12	0	6	9			
Delta-Butazolidin (501 Geigy)									
tablets ..	150	570	0	..	..	71	3	4A	ATS
	500	1740	0	..	..	217	6	4A	ATS
Dento (219 Calvert)									
	10	8	2	8	1	5			
Dequadin (34 A & H)									
tulle 4 X 4 in.	10	44	0	..	..	5	6		
	36	89	0	..	..	11	1½		
Desert Flower (1131 Shulton)									
dusting powder	77	0	37	6	13	6			
hand and body lotion	44	6	21	8	7	9			
dispenser ..	92	6	45	1	16	6			
purse perfume ..	70	0	34	2	12	6			
spray cologne ..	128	0	62	5	22	6			
talcum powder	37	0	18	0	6	6			
toilet water ..	70	0	34	2	12	6			
Dexten (70 Aspro)									
	250	210	0	..	..	26	3	4B	
Dimyrl (502 Genatossan)									
linctus ..	2 oz	29	0	7	4	3			
	4 oz	50	0	12	8	7	3		
Dinneford's (104 BP) magnesia									
	19	8	4	11	2	6			
	13	6	6	9	2	3			
Discord (876 MP)									
Distaval (378 DCBL)									
tablets forte 100 mgm	1000	204	0ea	..	306	0	4	B	
Distavone (378 DCBL)									
vet. vial	..	75	mils	46	6ea	..	69	6	
								7	TSVPO
Distivit (378 DCBL)									
20 elixir ..	4 oz	3	0ea	..	4	6			
1000 tablets ..	4	6	0ea	..	9	0			
Donnazyme (1071 Robins)									
tablets ..	50	122	0	30	6	14	6½	1s4A	
	500	1020	0	255	0	121	3	1s4A	
Dorothy Gray (385 DG)									
propelling eyeliner	72	0	36	0	12	0			
refill ..	27	0	13	6	4	6			
Dulcolax (154 B)									
suppositories 10 mgm	6	25	0	..	..	3	1½		
	50	150	0	..	..	18	9		
tablets 5 mgm	30	25	0	..	..	3	1½		
	200	130	0	..	..	16	3		
Duromorph (718 LAB)									
ampoules 1.1 mil	..	6	81	0	..	9	0	DD	
Ekco (1377 Ekco)									
Ekcostat control	..	..	..	..	..	32	6		
Elastoplast (1155 S&N)									
first aid dressings									
3 X ¾ in	100	11400	114	0	..	13	3		
waterproof									
3 X ¾ in	100	12400	114	0	..	13	3		
airstrip									
3 X ¾ in	100	14400	171	0	..	20	0		
Enavid (1121 Searle)									
tablets 10 mgm	20	31	0ea	..	46	6	4	4B	
	50	69	10ea	..	104	9	4	4B	
	250	323	3ea	..	464	10	4	4B	
Endoxana (1305 WB)									
tablets 50 mgm	50	22	0ea	..	33	0	4	4A	
	250	100	0ea	..	150	0	4	4A	
vials 100 mgm	10	40	0ea	..	60	0	4	4A	
200 mgm	10	53	4ea	..	60	0	4	4A	
Energen (421 Energen)									
low sugar jams									
strawberry ..	½ lb	15	0	..	..	1	8		
	1 lb	24	9	..	..	2	9		
plum ..	½ lb	13	6	..	..	1	6		
	1 lb	22	6	..	..	2	6		
orange marmalade ..	½ lb	13	6	..	..	1	6		
	1 lb	20	3	..	..	2	3		
Eno's (104 BP) Fruit Salt									
	24	0	6	0	3	0			
	42	8	10	8	5	4			
Eslim (1158 Sodastream)									
squash ..	..	..	..	..	..	2	0		
Fashion Style (631 Hudnut)									
soft casual ..	202	33	6	16	9	5	6		
	200	53	6	26	9	8	9		
very curly ..	203	33	6	16	9	5	6		
	201	53	6	26	9	8	9		
for children ..	998	29	6	14	9	4	9		
Feather Finish (1355 Yardley)									
Florentine case	1402	69	0	34	6	11	6		
Fellcur (1107 SAGB)									
(distributors 973 Pharmethicals)									
capsules ..	1000								
Fennings (1100 JS)									
baby dusting powder ..		14	6	3	7½	1	11		
cooling powders children's									
	5	45	0	11	3	6			
		gross		gross					
	20	14	6	3	7½	1	11		
	100	69	6	17	4½	1	11		
little healers ..	36	12	6	3	1½	1	8		
	90	29	0	7	3	3	10		
	12	60	0	15	0	6			
		gross		gross					
		9	3	..	..	1	2		
Fibronyle (461 FL) throat spray									
Flair (1355 Yardley)									
bath oil ..	1866	75	0	37	6	12	6		
dusting powder	4809	93	0	46	6	15	6		
Cologne ..	1884	69	0	34	6	11	6		
	4885	126	0	63	0	21	0		
crystallised ..	4870	45	0	22	6	7	6		
perfume ..	4890	75	0	37	6	12	6		
½ oz ..	4892	165	0	82	6	27	6		
1 oz ..	4893	270	0	135	0	45	0		
soap ..	4862	21	0	5	3	2	9		
spray mist ..	4847	87	0	43	6	14	6		

Flavelix (466 FF) linctus	4 oz	28	0	7	0	4	1	ts7
	20 oz	100	0	..	..	..	..	ts7
	80 oz	30	0ea	..	..	..	..	ts7
Floidam (900 Norton)								
lotion ..	3 oz	39	0	19	6	8	6	
	5½ oz	66	0	33	0	11	0	
Floidam Tan (900 Norton)								
	3 oz	57	0	28	6	9	6	
	5½ oz	105	0	52	6	17	6	
Delete Formula 21 (539 Greenwood)								
Formula 21 (104 BP) 7-day		81	7	..	..	8	6	
	21-day	201	7	..	..	21	0	
Fracas (Piguet (1201 Supervite))								
bath oil ..	½ oz	13	0ea	6	6ea	26	9	
Franocide (208 BW) vet								
injection 400 mils ..		225	0	..	..	25	0	VSO
Freshman (876 MP)								
after shave ..		21	0	10	6	3	6	
Gone Tan ..		33	0	16	6	5	6	
hairfix ..		15	0	7	6	2	6	
refill ..		7	6	3	9	1	3	
aerosol ..		45	0	22	6	7	8	
shampoo ..		17	0	4	3	2	8	
sponge-on deodorant ..		31	0	7	9	4	6	
refill ..		13	6	3	4½	2	0	
talcum ..		21	0	10	6	3	6	
Froidex (787 Macfarlan)								
anti-freeze ..	½ gall	147	0	..	..	18	0	
	1 gall	282	0	..	..	30	8	
Furamide (143 Boots)								
tablets ..	15	69	0	17	0	10	0	
	250	76	7ea	19	1½ea	134	0	
Fynnon (104 BP) balm ..		25	10	6	5½	3	5	
	salt	23	4	5	10	3	0	
Gamgee (1073 Robinson) tissue								
blue label BPC ..	2 oz	7	3½lb	..	..	1	3	
	4 oz	6	8½lb	..	..	2	3	
	8 oz	6	4½lb	..	..	4	3	
	16 oz	6	1½lb	..	..	8	2	
pink label NHS No. 3 ..	2 oz	5	10 lb	..	..	1	0	
	4 oz	5	3½lb	..	..	1	9	
	8 oz	4	10½lb	..	..	3	3	
	16 oz	4	7½lb	..	..	6	2	
Germolene (104 BP) ..		35	5	8	10½	4	6	
Germoloids (104 BP) ..		23	4	5	10	3	0	
Germoplast (104 BP) ..		7	10	..	..	10½	..	
		15	8	..	..	1	9	
Gestatin (917 Organon)								
tablets 5 mgm ..	30	18	6ea	..	..	27	9	
	100	52	0ea	..	..	78	0	
Glo (876 MP) ..		13	6	6	9	2	3	
Glow-Pot (1126 Servis) ..		38	9	..	..	4	9	
Gon (1305 WB) tablets ..		27	0	..	..	3	0	
Gossamer (164 Brandt) eyelashes		60	0	..	..	7	6	
Goya (532 Goya)								
perfume cologne spray								
aerosol ..	30	57	6	28	0	9	6	
cedar wood cologne for men		45	3	22	1	7	6	
pre-electric shave lotion		33	3	16	3	5	6	
soap ..		11	6	2	10	1	6	
Heath & Heather (588 H&H)								
dandelion coffee ..	½ lb	38	0	..	..	4	3	
	1 lb	68	0	..	..	7	6	
essence ..	247	34	0	..	..	3	9	
slippery elm food ..	½ lb	20	0	..	..	2	2	
	1 lb	38	0	..	..	4	3	
	2 lb	68	0	..	..	7	6	
unmalted ..	1 lb	38	0	..	..	4	3	
wholemeal malted ..	1 lb	38	0	..	..	4	3	
Hemotabs (634 GH) ..	12	22	9	5	8½	3	0	
Hide-It (876 MP) ..		10	6	2	7½	1	6	
Mumatin (938 PD) capsules	16	40	0ea	..	..	60	0	TS
	100	243	1ea	..	..	365	0	TS
Hydratene (276 C&C)								
tablets ..	25	30	0	..	..	3	9	†
	250	160	0	..	..	18	6	†
Ilosone (413 Lilly)								
Pulvules 125 mgm ..	24	21	0ea	..	..	31	8	TS
	100	86	4ea	..	..	129	8	TS
	500	417	0ea	..	..	625	6	TS
	250 mgm ..	12	20	4ea	..	30	8	TS
	100	167	2ea	..	..	250	9	TS
	500	812	6ea	..	..	1218	9	TS
Immac (655 ICC)								
hair removing cream ..		44	2	22	1	7	0	
Infurno (232 Carter)								
massage cream ..	1½ oz	18	0	4	6	3	0	
Insulex (658 Insulex)								
ice bowl ..		22	0ea	2	7ea	35	8	
I-So-Gel (34 A & H) ..	200 gm	56	0	14	0	7	8	
Jane Seymour (665 JS)								
wonder cream ..		7	0	3	6	1	2	
		12	0	6	0	2	0	
Joypeat (671 Jeyes) compound								
trial ..		24	0	..	..	3	0	
pack of 8 ..		29	4	..	..	5	6	
pack of 4 ..		27	4	..	..	10	3	
sack ..		24	0ea	..	..	36	0	
Johnsons (672 Johnson)								
baby suds ..		17	3	..	..	1	11	
Kodak (711 Kodak)								
Brownie Cresta 3 camera		292	0	73	0	42	7	
plastic case ..	925	64	0	16	0	9	4	
Kristina (996 PR&D) rollaway		18	9ea	9	4½ea	37	6	
Kruschen (634 GH) salts		12	8	3	2	1	8	
		22	5	5	7½	2	11	
Ladye Jane (735 Loughton)								
curlers ..	20/3	10	3	2	6	1	8	
hair pins 2 in ..	83/90	82	0	20	6	1	0	
		gross		gross				
Ledermycin (746 Lederle)								
drops ..	10 mils	7	4ea	..	..	11	0	TS
syrup ..	2 oz	10	10ea	..	..	16	3	TS
	16 oz	78	0ea	..	..	117	0	TS
Lion (205 Burgess)								
ointment ..	1½ oz	15	0	3	9	2	0	
	3 oz	33	0	8	3	4	3	
Lip-Stik (876 MP)								
Litto (1282 VB)								
Cremond ointment ..		20	0	5	0	3	0	
Patchoid lotion ..		52	0	13	0	7	11	
Sebacoid lotion ..		23	8	5	11	3	5	
		38	8	9	8	5	9	
special for dry hair ..		13	4	6	8	2	4	
		22	0	11	0	4	0	
		38	8	19	4	6	10	
standard for oily hair		13	4	6	8	2	4	
		22	0	11	0	4	0	
		38	8	19	4	6	10	
		22	0	11	0	4	0	
Tintas colour restorer								
Margo's (798 Margolls)								
baby powder ..		7	2	1	9½	1	3	
	8 oz	12	6	3	1½	2	0	
hair lacquer spray bottle								
	2½ oz	11	0	5	6	2	0	
Maw's (810 Maw)								
lanoline cream tube	438.00	8	7	4	3½	1	6	
jar	438.01	24	9	12	4½	4	6	
baby pants								
nylon, lace covered, "Sunday"		44	0	..	..	5	6	
polythene feeder 4 oz	303.13	37	8	..	..	2	6	
Mentholatum (836 Mentholatum)								
deep heat rub ..		50	0	12	6	6	9	
Metamsustac (972 Pharmax)								
tablets 7½ mgm ..	30	4	1½ea	..	..	ts4B		
	250	31	0ea	..	..	ts4B		
	15 mgm ..	30	4	10½ea	..	ts4B		
	250	37	0ea	..	..	ts4B		
Metercal (826 MJ)								
Miners (876 MP)								
hair lacquer ..		13	6	6	9	2	3	
refill ..		7	6	3	9	1	3	
lipstick ..		9	0	4	6	1	8	
lipstick/nail lacquer duo		18	0	9	0	3	0	
mascara autobrush ..		21	0	10	6	3	6	
block ..		9	0	4	6	1	6	
nail lacquer ..		9	0	4	6	1	8	
frosted ..		15	0	7	6	2	6	
remover ..		7	6	3	9	1	3	
shadow combo ..		9	0	4	6	1	8	
stick make-up ..		9	0	4	6	1	6	
super liner ..		9	0	4	6	1	6	
talcum ..		15	0	7	6	2	8	
Monastery (856 MH)								
(distributors 634 GH)								
herbs ..		10	8	2	8	1	5	
		24	7	6	1½	3	3	
Morny (862 Morny)								
luxury mist								
Blue Carnation, Pink Lilac,								
Sandalwood, French Fern,								
June Roses, Lily of the Valley,								
Gardenia ..								
Mos-tox (814 M&B)								
size 1 ..	40	0	..	..	..	15	0	
size 2 ..	52	0	..	..	..	4	0	
Mum (1113 S&B) for men								
	34	0	17	0	5	6		
My Tan (467 Fleet)								
(distributors 128 Biometica)								
after shave lotion ..	90	0	45	0	15	0		
Neo-Medrone Veriderm (1263 Upjohn)								
5 gm ..	7	0ea	..	..	..	TS		
Neron (1274 VDL)								
plastic de luxe lampstand		..	..	..	..	25	0	
Theratherm infra red lamp		..	..	..	..	21	8	MC
Ultra Vitalux irradiator		..	..	..	..	98	8	MC
New-Skin (104 BP) ..		20	3	..	..	2	3	
Nicotex (797 MSG)								
nicotine stain remover		22	0	11	0	3	6	
Nikini (1073 Robinson)								
sanitary garment ..	60	0	3	0	6	11		
pads ..	12	11	3	..	..	1	3	
Nivea (1155 S&N)								
sunflta cream								
sunspray oil aerosol								
Sunea sun filter creme	344	10	6	5	3	1	9	
	346	16	6	8	3	2	9	
sun tan oil ..	343	70	0	35	0	11	5	
Noir (Weil) (960 ADP)								
eau parfume ..	2 oz	080						

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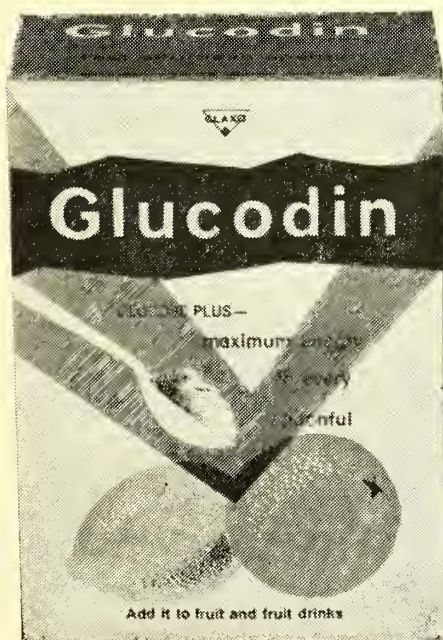
GLUCODIN

Trade Mark

the **original** Glucose-D
when there's a

FEVERISH

need for energy



In feverish conditions Glucodin provides extra energy without extra strain on the digestion. Glucodin is most acceptable in fruit squashes, cold drinks, sprinkled on cereals, or taken in any hot beverage in place of sugar.

- * 98.9% powdered medicinal glucose
- * added vitamin D, calcium and phosphorus
- * sweet but not sickly

In 1 lb cartons, retail price 2/9

**Order your supply in a No. 11
GLUCODIN
TOP-PROFIT PARCEL
2 doz x 1 lb cartons
net price £2.4.0**

GLAXO LABORATORIES LTD.
GREENFORD MIDDLESEX
BYRn 3434



Only the
PIFCO
MASSAGER
 offers these
 three benefits!



1 POWER OVER
RHEUMATIC PAIN!



2 BRINGS YOUTHFUL TONE
TO TIRED SKIN!



3 INVIGORATES
SCALP AND HAIR!



The tremendous benefits of home massage with the Pifco Massager will be explained to millions of families this autumn on all ITV stations.

Make a point of profiting from this hard-selling campaign. Have plenty of Massagers available; use show-cards and leaflets for windows and counters.

The Massager is strongly made, and

beautifully finished in Ivory Plastic. An adjustable regulator controls intensity of vibration. Fingertip switch in handle. Four different applicators supplied. For 200/250 volts, AC only.

RETAIL PRICE **75/-** including tax

ANOTHER BEST-SELLER FROM

PIFCO

• Platine (350 Dana) perfume	trial 45 0	22 3	7 6
120A	6 3ea	3 1ea	12 6
120V	10 6ea	5 2ea	21 0
	9 0	2 3	1 3
• Primoids (1152 SK)			
• Shurzine (1133 Shurzine) ointment	14 0	3 6	2 0
• Silvikrin (303 County) hair cream	12 9	6 4½	2 0
	19 2	9 7	3 0
hair dressing	18 1	9 0½	2 10
	28 8	14 4	4 6
hair tonic	18 1	9 0½	2 10
	28 8	14 4	4 6
pure	79 10	39 11	12 6
• Skenna (1152 SK) pastilles	9 0	2 3	1 3
• Skin Life (596 HR) mask			32 6
• Smith Kendon (1152 SK) lozenges			
• bismuth co., BPC ..	16 6	4 1	2 3
• Brompton	12 0	3 0	1 9
• bronchial	12 0	3 0	1 9
• cinnamon	12 0	3 0	1 9
• formalin	12 0	3 0	1 9
• formalin menthol and cinnamon	12 0	3 0	1 9
• glucose	10 6		1 3
• iodised throat	12 0	3 0	1 9
• linseed, liquorice and chlorodyne	12 0	3 0	1 9
• sulphur	12 0	3 0	1 9
• Sporostacin (922 Ortho) cream with applicator	180 0	40 0	25 10
tube only	160 0	40 0	23 4
• Styptol (708 Knoll) tablets	20 36 0	9 0	4 9 s1
	200 25 6ea	6 4½ea	40 4½ s1

• Sylvia (339 CG) sanitary towels, size 0	20 0	..	2 2
size 1	10 11	..	1 2½
size 2	21 6	..	2 4
size 3	25 3	..	2 9
	31 3	..	3 5
• Tabu (350 Dana) perfume	trial 45 0	22 3	7 6
104A	6 3ea	3 1ea	12 6
104V	10 6ea	5 2ea	21 0
toilet soap (3) ..	500 6 0ea	1 6ea	10 6
• Tanderil (501 Geigy) tablets 100 mgm ..	50 14 0ea	3 6ea	24 6 †s1s4A
	250 65 8ea	16 5ea	114 11 †s1s4A
	1000 256 9ea	64 2½ea	449 4 †s1s4A
• Thermos (1226 Thermos) vacuum jars	607	..	28 3
	608	..	96 1
	620	..	47 6
	81	..	103 2
	82	..	136 6
jugs	65	..	14 9
	34	..	41 0
	54	..	43 8
	54Q	..	46 2
	45	..	49 8
	45Q	..	57 4
	29	..	85 2
	29Q	..	102 11
	70	..	102 8
• Tofranil (501 Geigy) tablets 10 mgm ..	60 110 0	..	13 9 †s4B
	250 430 0	..	53 9 †s4B
	1000 1580 0	..	197 6 †s4B
• Trill (525 Golden) tube ..	15 0	7 6	2 6
• Zenoids (1152 SK) ..	12 0	3 0	1 9

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, OCTOBER 5: Many consignments of CRUDE DRUGS and ESSENTIAL OILS are now held up through the continued strike of tally clerks in the London docks. Some shipments have been transferred to Continental ports until the dispute is terminated.

One important outcome of the strike has been an increase in the price of PEPPER held on the spot although shipment values were lower. Aleppy green CARDAMOMS were quoted at 14s. 9d. per lb. on the spot after a temporary shortage. Zanzibar has increased the export duty on CLOVES with effect from October 1. The shipment rate has advanced one penny to 2s. 6½d. per lb., c.i.f. African GINGER was easier in both positions although Jamaican was still quoted at well under the African price; Cochin was down 10s. per cwt. on the spot. MENTHOL showed a little easier tendency despite the Chinese market still being bare. There were no offers of ERGOT from Portugal but the value was believed to be around 12s. per lb., c.i.f., however, spot holders wishing to take profits were offering at 9s. 6d. In AROMATIC SEEDS, both Moroccan FENUGREEK and CORIANDER remained a firm market.

The most important development among ESSENTIAL OILS during the week was an 18s.-per-lb. rise at origin of Mysore SANDALWOOD. Spot holders were content with 10s. above the previous week's prices. The extent of the damage done to Florida's citrus crops by the recent hurricane Donna has not yet been assessed. Meantime essential oil shippers are adopting a cautious attitude in dealing with orders for the oils. It has been pointed out that the trees stripped of their leaves may start to bloom again in winter. LEMONGRASS fell by threepence per lb. at origin but spot material, because of the difficulty of prompt replacement, held firm at 13s. 6d. Chinese ANISE was lower at 6s. 9d. per lb. (down three-half-pence) and Formosan CITRONELLA by one-penny per lb. for shipment.

Pharmaceutical Chemicals

ACETANILIDE. — Crystals. One-cwt. lots, 2s. 10d. per lb.; 5-cwt., 2s. 9d.

BORAX. — B.P. grade, 1 ton and upwards; Granular, £56; crystals, £59 10s.; powder, £60 10s.; extra fine powder, £61 10s. per ton, all in hessian sacks. Commercial from £46 to £51 10s. per ton, as to type and packing. Dehydrated borax is £70 per ton in paper-lined hessian bags or £69 in paper bags; carriage paid in Great Britain. Surcharges for smaller quantities: Less than 1 ton but not less than 5 cwt., 1s. per cwt.; 3 cwt., 2s.; 1 cwt., 3s.

BORIC ACID. — B.P. grade in 1 ton and upwards (per ton): Granular, £91; crystals, £99; powder, £96 10s.; extra-fine powder, £98 10s. per ton in lined hessian bags, carriage paid in Great Britain. Less £1 per ton if supplied in paper bags. Technical from £77 to £86 10s. per ton according to type and packing.

CORTISONE. — One-kilo lots; ACETATE, 10s. 6d. per gm. HYDROCORTISONE, ACETATE or ALCOHOL, 11s. per gm.

DIGOXIN. — 100-gm. lots, 78s. per gm.

ETHER. — Per lb. in winchesters: TECHNICAL B.S.S., and SOLVENT, 5-cwt. 2s. 7d.; (4s. 1d. per litre). In drums the price is 2s. 2d. per lb. ANÆSTHETIC, B.P., 5-cwt., 3s. 10d.; 10-cwt., 3s. 9d.

GLYCERIN. — Pharmaceutically pure (s.g. 1.2627): —

Annual purchases or spot lots of	Under 1 cwt.	1 cwt. and under 5-cwt.	5-cwt. and under 1 ton	1 ton and under 5 tons	5 tons and under 25 tons
Per cwt. DRUMS	s. d.	s. d.	s. d.	s. d.	s. d.
14-lb.	281 0	276 0	272 6	268 0	265 6
28-lb.	279 0	274 6	270 6	266 0	263 6
56-lb.	275 0	270 6	266 6	262 0	259 6
TINS					
1-cwt.	—	254 6	250 6	246 0	244 6
2½-cwt.	—	251 6	248 0	243 6	242 0
5-cwt.	—	—	247 6	243 0	241 6
10-cwt.	—	—	246 6	242 6	241 0

For 25 tons and upwards the price is from 265s. 6d. to 240s. as to containers. Bulk deliveries in tank wagons from 326s. to

237s. 6d. Technical grade glycerin s.g. 1.2627, is 5s. per cwt. less than the above.

GLYCEROPHOSPHATES. — Per lb. in 1-cwt. lots: —ACID, B.P.C., 20 per cent., 4s. 7d.; CALCIUM, soluble, B.P.C., 12s.; IRON, B.P.C., scale, 15s. 9d. and powder, 14s. 9d.; MAGNESIUM, soluble, B.P.C., 14s. 3d.; MANGANESE, B.P.C., 27s.; POTASSIUM, 50 per cent., B.P.C., 3s. 9d. and 75 per cent., B.P.C., 5s. 6d.; SODIUM, 50 per cent., 2s. 7d.; 75 per cent., 4s. 6d.; 100 per cent., 8s.

HYDROGEN PEROXIDE. — 27.5 per cent. (by weight), £115 per ton; 35 per cent. £138 in returnable carboys.

HYOSCINE HYDROBROMIDE. — Per oz., 102s.

HYPHOSPHITES. — Per lb.: —

	7 lb.	28 lb.	1 cwt.
	s. d.	s. d.	s. d.
CALCIUM, B.P.C. ..	6 9	6 4	5 11
IRON, B.P.C. ..	13 9	13 3	12 9
MAGNESIUM ..	11 6	11 1	10 8
MANGANESE, B.P.C.	13 11	13 5	12 11
POTASSIUM, B.P.C.	9 3	8 10	8 5
SODIUM, B.P.C. ..	7 7	7 2	6 9

IODIDES. — (Per kilo). POTASSIUM, 50-kilo lots 16s.; SODIUM, 20s. 6d.; AMMONIUM, 45s.

LODOFORM. — Powder, 22s. 4d. per lb. in 28-lb. lots; 21s. 8d. in 1-cwt. and 21s. 1d. in 5-cwt. lots. Crystals are 3s. per lb. more than the powder.

ISOPRENALINE SULPHATE. — (Per gm.), 100-gm. lots, 1s. 6d.; 500-gm., 1s.; 1-kilo, 9d.

LACTIC ACID. — B.P. 4s. 5d. per lb. for 12-winchester lots and 4s. 4d. for 5-cwt. lots. Edible, 80 per cent. acid. 2s. 4d. per lb. for under 1-ton lots; 12 winchesters, 2s. 8d. per lb.

MAGNESIUM CARBONATE. — Per cwt., LIGHT, 129s. or 121s. for 1-ton lots; HEAVY, 170s. for 1-cwt. lots; from 130s. to 135s. for 1-ton lots.

MAGNESIUM CHLORIDE. — One-cwt. 1s. 10d. per lb., 5-cwt., 1s. 7d.

MAGNESIUM HYDROXIDE. — B.P.C., 1-cwt. lots, 3s. 7d. per lb.; 1-ton, 3s. 2d. per lb.

MAGNESIUM OXIDE, B.P. — LIGHT, 1-cwt. lots, 3s. 2d. per lb.; HEAVY, 5s. 10d. per lb.

MAGNESIUM PEROXIDE. — B.P.C. (15 per cent.), 3s. 11d. per lb. (1-cwt.).

MAGNESIUM SULPHATE. — B.P. in mini-

mum 1-ton lots varies between £18 and £21 per ton according to size of crystal and manufacturer. Exsiccated, £42 per ton. All ex works.

MAGNESIUM TRISILICATE.—(Per lb.). In 28-lb. packages:—28-lb., 4s. 9½d.; 1-cwt. 3s. 10d.; 5-cwt., 3s. 7d.; 1-ton, 3s. 1d.

METHYL PHENOBARBITONE. — B.P.C., 95s. per kilo for less than 25-kilo lots.

OLEIC ACID.—B.P. grade, £170 10s. per ton (£174 10s. single drum lots); 1 gall. tins 21s. per gall.

OXALIC ACID. — Manufacturers' rates for 1-ton lots, £128 10s. per ton, delivered in free kegs.

PARACETAMOL.—Minimum 10-cwt., 10s. per lb.; 56-lb., 10s. 3d.

PARALDEHYDE. — B.P. in 12-winchester lots, 2s. 10d. per lb. (6s. 3d. kilo); 10-gall. carboys, 2s. 4d.

PENICILLIN. — SODIUM, POTASSIUM or PROCAINE, 7½d. per mega unit.

PHENACETIN.—B.P. one-ton lots, 6s. 3d. per lb.; 1-cwt., 6s. 6d.

PHENAZONE.—Imported, 9s. 6d. per lb.

PHENOLTHALEIN.—One-cwt. 9s. per lb.

PHENOLPHTHALEIN.—One-cwt. lots 23s. per lb.; less than 56-lb., 25s.

PILOCARPINE.—In 2-kilo lots prices are: HYDROCHLORIDE, 1,013s. per kilo; NITRATE, 825s.

PIPERAZINE.—(50-kilo lots), ADIPATE, 26s. per kilo; CITRATE, 25s.; HEXAHYDRATE, 24s. and PHOSPHATE, 30s.

ROCHELLE SALT.—Powder or granulated, 5-cwt. lots or over in kegs, 220s. per cwt.; 1-cwt. 222s. 6d. (bags less 5s.).

SULPHOCARBOLATES.—SODIUM PHENOSULPHONATE, B.P.C., 1949 (powder), 5s. 6d. per lb. in 1-cwt. lots and ZINC, B.P.C., 1949, is 5s. 6d.

Crude Drugs

ACONITE. — Spot: Spanish *napellus*, 2s. 6d. per lb.

AGAR.—Kobe No. 1, 16s. per lb. in bond.

ALOE.—Cape primes, spot, 180s. per cwt., extra quality 185s. quoted; shipment, Port Elizabeth, 175s., c.i.f. Curaçao, spot, 480s.; shipment, 440s., c.i.f.

BALSAMS.—Per lb.; CANADA: Spot, 22s. for paper-filtered. COPAIBA: Spot, 7s. to 10s., duty paid as to source. PERU: Spot, 9s. in bond. TOLU (genuine as imported): 21s. B.P., 12s. 6d. per lb.

BELLADONNA. — LEAVES (t.a. 0.53 per cent.), 1s. 9d. per lb. Dutch for shipment (t.a. not quoted) 2s., c.i.f. Root cleared on the spot.

BENZOIN. — Sumatra block, spot £22 to £30 as to quality.

CALABAR BEANS.—Spot, 2s. 3d. per lb.

CALAMUS.—Root, 1s. 2d. per lb., c.i.f.

CALUMBA.—Root, 100s. per cwt., spot, 87s. 6d., c.i.f.

CAMPHOR.—B.P. powder, 3s. 10½d. per lb. in bond.

CAPSICUMS.—Chinese, 155s., duty paid; East African, off-stalk, 175s. to 220s. as to quality.

CARDAMOMS. — Aleppy greens, spot, 14s. 9d. per lb.; prompt shipment, 13s. 7½d. per lb., c.i.f. Seeds, shipment, 21s. 6d., c.i.f.

CASCARA.—Spot, 1960 peel, 260s. per cwt., shipment, 265s., c.i.f.

CINNAMON QUILLS.—Shipment (c.i.f., per lb.) 4 O's, 5s. 8d.; 3 O's, 5s. 5d.; O, 5s. 0½d.; quillings, 3s. 3½d.; featherings, 1s. 8d.

COCHINEAL.—Black-brilliant, 12s. 3d. per lb., spot; Peruvian silver-grey, 4s. 6d.

CLOVES.—Zanzibar spot, 2s. 9d. per lb.; shipment, 2s. 6½d., c.i.f.

ERGOT.—Portuguese nominally 12s. 0d. per lb., c.i.f., for prompt shipment; spot, 9s. 6d.

FRANGULA.—Spot, 105s. per cwt.

GINGER. — African, spot, 230s. and 220s., c.i.f. Jamaican No. 3, spot, 205s.; shipment, 197s. 6d., c.i.f. Cochín, shipment, new crop, 153s., c.i.f.; spot 180s. (per cwt.).

GUM ACACIA. — Kordofan cleaned sorts, 167s. 6d. per cwt., spot; October–November shipment, 156s., new crop, December–January, 151s. (both c.i.f.).

HENNA.—Indian, spot, 95s. per cwt.; new crop, November–December shipment, 62s. 6d., c.i.f.

HONEY.—Australian light amber, 97s. 6d. to 100s. per cwt. and medium amber 92s. 6d. to 97s. 6d.; Argentine, 100s.; Jamaican, 110s. to 115s.; Canadian clover, 145s. to 150s., all ex warehouse.

IPECACUANHA. — For shipment, c.i.f., per lb.—Colombian, 52s. 6d.; Costa Rican, 68s. 6d.; Nicaraguan, 66s. 6d. Spot: Matto Grosso, 53s. 9d.; Colombian, 55s. 6d.

LANOLIN. — ANHYDROUS, B.P., is from 170s. to 175s. per cwt. in 1-ton lots and HYDROUS, B.P., 150s., free drums, delivered.

LEMON PEEL.—Spot, 2s. 6d. per lb.

LIQUORICE. — Natural root: Persian on the spot, 45s. per cwt. and Anatolian decorticated, 165s. Block juice: Anatolian from 190s. per cwt.; Italian stick from 310s. to 470s. per cwt.

LOBELIA HERB.—Dutch for October shipment, 3s. 6d. per lb., c.i.f.

MENTHOL. — Chinese: market nominal. Brazilian, 58s., in bond; 58s., c.i.f. Formosan, 57s. 6d., duty paid (55s. in bond).

NUTMEGS. — West Indian 80's 12s. per lb., spot; sound unassorted, 9s. 6d.; defectives, 7s.

PEPPER.—White Sarawak, spot, 5s. 4½d. per lb.; shipment lower at 4s. 8½d., c.i.f. Black Sarawak spot, 3s. 10½d. Shipment, 3s. 3d., c.i.f. Black Malabar, 460s. per cwt. spot, and 450s., c.i.f.

PODOPHYLLUM. — *Emodi*, 190s. per cwt. spot.

SEEDS.—(Per cwt.). ANISE.—Spanish, 155s., spot, duty paid. CELERY.—Indian, 145s., spot; shipment, 137s. 6d., c.i.f. CORIANDER.—Moroccan firm with spot quoted at 85s., duty paid and shipment, 70s., c.i.f., quoted. CUMIN. — Indian, 197s. 6d., spot; Iranian, 200s., duty paid. DILL.—Indian unchanged at 100s. spot; shipment, 87s. 6d., c.i.f. FENNEL. — Chinese offering at 105s., duty paid; Indian, 125s. FENUGREEK.—Moroccan firm at 55s., duty paid; shipment, 47s. 6d., c.i.f. MUSTARD.—English, 77s. 6d. to 87s. 6d., according to quality.

SENEGA.—Spot, 21s. 6d. per lb.

SHELLAC.—F.O.T.N., 202s. 6d. per cwt.; No. 1, 225s.; F.O., 235s. to 285s., spot.

SQUILL.—White 80s. per cwt., spot.

STRAMONIUM. — Indian LEAVES 60s. per cwt., spot. Dutch 0.5 per cent. alkaloid 93s., c.i.f.

STYRAX. — Spot, 32s. 6d. per lb., shipment, 30s., c.i.f.

TONQUIN BEANS.—Para spot, 7s. 3d. per lb. Shipment, 7s., c.i.f. Angostura 11s.

TRAGACANTH. — No. 1 ribbon, £135 to £140 per cwt. No. 2, £125 to £130.

TURMERIC. — Madras finger on spot is 105s. per cwt.; shipment, 98s. to 100s., c.i.f., quoted.

VANILLIN.—Rates (per lb.) are now:—5-cwt. lots, 23s. 3d.; 1-cwt., 23s. 6d.; 56-lb., 23s. 9d.; smaller quantities, 24s.

WAXES. — (Per cwt.). BEES.—Dar-es-Salaam, spot, 485s.; shipment, 460s., c.i.f. Abyssinian, spot 410s. in bond; shipment 370s., c.i.f. Benguela, shipment, 380s., c.i.f. Sudanese, spot, 425s.; shipment, 380s., c.i.f. CANDELLILLA, spot, 470s. CARNAUBA, fatty grey, spot, 545s.; shipment, 530s., c.i.f.; prime yellow, spot, 750s.; shipment, 730s., c.i.f.

Essential and Expressed Oils

ALMOND. — Moroccan, 6s. per lb., duty paid.

ANISE.—Chinese, 6s. 9d. per lb., spot; shipment, 6s. 5d., c.i.f.

CAJUPUT.—Spot from 10s. per lb.

CAMPHOR, WHITE.—Chinese, 1s. 8d. per lb. in bond; 1s. 5d., c.i.f.

CASTOR.—Home-produced B.P. oil, spot, £159 per ton naked ex mill (2-ton lots).

CELERY SEED. — Dutch oil, 90s. per lb. and Chinese, 65s.

CITRONELLA. — Ceylon, spot, 6s. 7½d.; shipment, 6s. 5d. per lb., c.i.f. Formosan, spot, 6s. 4½d., in bond; shipment, 5s. 11d., c.i.f.

COD-LIVER. — B.P. is 11s. 6d. per gall. in charged returnable drums. Veterinary is from 9s. 6d. per gall.

CORIANDER.—B.P. oil, 52s. 6d. per lb., spot.

CUBEB.—Small spot supplies of imported are 65s. per lb.; English, 90s.

CUMIN.—Imported oil, 90s. per lb.

DILL.—Imported, 26s. 6d. per lb., spot.

EUCALYPTUS.—Australian 70 and 75 per cent. eucalyptol on the spot is 5s. 3d. per lb. 80–85 per cent., 5s. 6d. Spanish (70–75), 3s. 6d. spot. Chinese 3s. to 3s. 6d., duty paid.

GINGER.—Imported: Jamaican, 130s. per lb.; Chinese, 72s. 6d., duty paid.

GINGERGRASS.—Spot 27s. 6d. per lb.

GRAPEFRUIT. — Jamaican, 12s. 6d. per lb. spot. Florida, 14s. 6d., nominal.

LAVANDIN.—Spot from 6s. per lb. for original drums.

LAVENDER.—From 20s. to 50s. per lb. as to quality.

LAVENDER SPIKE.—Spanish, 13s. 9d. per lb. for original drums.

LEMONGRASS. — Spot, 13s. 6d. per lb., and shipment, 12s. 6d., c.i.f.

NUTMEG.—Imported B.P. oil is 90s. per lb. English-distilled 100s.

OLIVE. — Spot, 19s. 6d. to 20s. 6d. per gall. in drums ex wharf, London.

ORANGE.—Spot quotations of sweet oil include Floridan at 4s. per lb. nominal; West Indian, 4s. 6d.; Israeli, 7s. 6d.; Californian, 5s. 3d. to 7s. 6d.

OTTO OF ROSE.—Bulgarian, 400s. per oz. Turkish, £350 per kilo.

PATCHOULI. — Penang is 40s., duty paid and 36s. 6d., c.i.f. per lb.

PEPPERMINT. — *Arvensis*: Chinese spot, cleared, Brazilian, 16s. 3d. per lb. spot and shipment, 16s. 3d., c.i.f. *Piperita*: Italian "Mitcham-type" nominally 55s. per lb., c.i.f., for new crop. Bulgarian, B.P., 32s. 6d. American, from 32s. per lb., nominal.

ROSEMARY.—Spanish is 7s. 6d. per lb. on the spot for best quality.

SANDALWOOD.—Mysore 150s. to 155s. per lb.

UNITED STATES REPORT

NEW YORK, OCTOBER 4: VANILLA BEANS eased, making both Bourbons and Mexicans \$9.25, down 65 cents a lb. Asiatic STYRAX firmed up to \$5.25 a lb., 25 cents higher, while TRAGACANTH No. 1 ribbon declined to \$3.90 (down 15 cents). SPEARMINT OIL rose to \$5.75 a lb., up \$1. The terpeneless is now \$12.50, up \$3.50. PEPPERMINT OIL was also higher, the natural being quoted at \$4.50 a lb., up ten cents; the redistilled \$4.85, up 15 cents, and the terpeneless \$11.75, up 50 cents. Peruvian BOIS DE ROSE oil was quoted ten cents higher at \$1.80 a lb. Lower per lb. were Haitian VETIVER OIL at \$13.50, down 50 cents.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," September 21
 For fungicides, acaricides, bactericides, preparations for killing weeds and destroying vermin (5)
 MOSTOX, 804,239, by May & Baker, Ltd., Dagenham, Essex.

For photographic and cinematographic cameras, photographic and cinematographic projectors; filter holders, lens hoods, and holders for light filters, all being for use with photographic and cinematographic cameras; and flashguns for photographic purposes (9)

KOPIL, 806,618, by Julius Joseph Silber, London, W.C.1.

For devices used in the administration of medicinal preparations (10)

ABBOSERT, 799,121, by Abbott Laboratories, North Chicago, Illinois, U.S.A.

For paper handkerchiefs (non-medicated) (16)

JEFFY'S, 792,491, by H. & A. Manufacturing Co., Ltd., Salford, 6.

For toilet paper (not medicated) (16)

Devices with words JEYES' HYGIENIC TOILET TISSUE SOFT AND STRONG, 802,389-90, by JEYES' Sanitary Compounds Co., Ltd., Barking, Essex.

For combs; and small domestic utensils and containers (none being of precious metal or coated therewith) (21)

LUSTRATHENE, 797,123, by E. R. Holloway Sales, Ltd., Welwyn Garden City, Herts.

For tooth-brushes, cleaning pads impregnated with soap, combs, etc. (21)

BYSEL, 798,656, by Byers Sellers (Manchester), Ltd., Lytham St. Annes, Lancs.

For chamber-utensils for babies (21)

POLYTOY, 805,457, by Cisterns, Ltd., Ilkley, Yorks.

From the "Trade Marks Journal," September 28

For saccharin (1)

SUPA SAX, 806,593, by Thompson & Capper, Ltd., Liverpool, 24.

For detergents in powder form (not for use in industrial or manufacturing processes) (3)

VIVO, 775,693, by W. & F. Walker, Ltd., Kirkby, nr. Liverpool.

For all goods (3)

Device with word TAKAMINE, B778,232, by Miles Laboratories, Inc., Elkhart, Indiana, U.S.A. OUTDOOR GIRL YOUNG SET, 802,828, by Crystal Products Co., Ltd., Surbiton, Surrey.

For cosmetic preparations (not being toilet preparations) (3)

AUTOMAGIC MAKE-UP, B792,075, MAQUILLAGE AUTOMAGIQUE, B792,079, by Antoine François Régis Peyron, Paris 9e, France.

For non-medicated toilet preparations (3)

DON LOPER, 794,035, by Don Loper, Inc., Beverly Hills, California, U.S.A.

For wetting agents, being cleaning preparations for addition to the water used in dishwashing machines (3)

RINSHINE, B795,210, by Charles Colston, Ltd., London, W.1.

For preparations and substances for laundry use; cleaning, polishing, scouring and abrasive preparations; detergents, and soaps (3)

VISIDUS, 797,969, by Horton Manufacturing Co., Ltd., Rickmansworth, Herts.

For soaps, perfumes, essential oils, cosmetics, and non-medicated toilet preparations (3)

Device with word LOVABLE, B798,762; device with words MISS LOVABLE, B798,886, by Lovable Brasserie Co., Atlanta, Georgia, U.S.A.

For hair dyes (3)

JUWEL, 803,246, by Kleirol-Produktion, G.m.b.H., Hamburg 36, Germany.

For perfumes, toilet preparations (not medicated), cosmetic preparations, dentifrices, depilatory preparations, toilet articles (not included in other classes), sachets for use in waving the hair, soaps, and essential oils (3)

FIELDSMAN, 804,499, by J. C. & J. Field, Ltd., Salford, Manchester.

For pharmaceutical preparations of isonicotinamide (5)

NIAMID, 788,105, by Chas. Pfizer & Co., Inc., Brooklyn, New York, U.S.A.

For pads, being articles of sanitary clothing (5)
 SANTIPADS, 790,679, by Cosette, Ltd., London, S.W.3.

For materials prepared for dressing wounds, and catamenial pads; all of textile materials (5)

BOBABY, 793,385, by S. A. de L'Ancienne Maison Devaud, Kunste & Co., Geneva, Switzerland.

For all goods (5)

LONGOCTIVE, 798,105, by Roche Products, Ltd., Welwyn Garden City, Herts, CALGENE, 805,988, by Calmic, Ltd., Crewe, Cheshire, PENCEF, 806,306, by Distillers Co. (Biochemicals), Ltd., Speke, Liverpool, 24, URSO, 798,959, by Tokyo Tanabe Seiyaku, K.K., Tokyo, Japan.

For disinfectants (5)

PLUS-DIS, 798,166, by 'Nu' Products Co., Ltd., Cardiff, Wales.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, October 10

HENDON AND EDGWARE BRANCH, PHARMACEUTICAL SOCIETY, Hendon Hall hotel, Ashley Lane, London, N.W.4, at 8 p.m. Dr. H. Flack (Editor, *Family Doctor*) on "Humorous Aspects of Medical Journalism."

INSTITUTION OF CHEMICAL ENGINEERS, Royal Institution, Albemarle Street, London, W.1, at 3 p.m. Symposium on "Surface Effects and Liquid Behaviour."

LONDON NURSING EXHIBITION, Seymour Hall, Seymour Place, London, W.1, (Until October 14.)

NORTH METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, Beale's restaurant, Holloway Road, London, N.7, at 7.45 p.m. Dr. A. M. Cook (reader in pharmacology, School of Pharmacy, London University) on "Disinfectants."

STOCKPORT BRANCH, PHARMACEUTICAL SOCIETY, nurses' recreation room, West Park Hospital, Macclesfield, at 8 p.m. Dr. J. J. F. Merry (Merck Sharp & Dohme, Ltd.) on "Modern Diuretics."

WIMBLEDON PHARMACISTS' ASSOCIATION AND BRANCH, Wimbledon town hall, at 7.45 p.m. Exhibition of members' slides.

Tuesday, October 11

COVENTRY BRANCH, NATIONAL PHARMACEUTICAL UNION, Congregational Church, Warwick Road, at 8 p.m. Mr. J. Wright (deputy secretary, N.F.U.), on "N.H.S. Remuneration."

EAST KENT BRANCH, PHARMACEUTICAL SOCIETY, Falstaff hotel, Canterbury, at 8 p.m. Talk by Mr. T. Reid (president, Pharmaceutical Society).

HOUNSLOW BRANCH, PHARMACEUTICAL SOCIETY, Sun hotel, Hanworth Road, at 8 p.m. Mr. A. R. G. Chamings (a member of the Society's Council) on "Trends in Modern Medicine."

NORWICH BRANCH, PHARMACEUTICAL SOCIETY, Assembly House, Theatre Street, at 7.30 p.m. Mr. A. Aldington (a member of the Society's Council) on "My Business is Pharmacy."

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Black Boy hotel, Long Row, at 7.30 p.m. Mr. W. Haigh (clerk of the Joint Pricing Committee) on "The Work of the Joint Pricing Committee."

SOUTH-EAST LONDON CHEMISTS' ASSOCIATION, New Cross inn, 323 New Cross Road, London, S.E.14, at 8 p.m. Film show and exhibition of members' cine films and slides.

SOUTH SHIELDS PHARMACISTS' ASSOCIATION, Golden Lion hotel, King Street, at 7.30 p.m. Dr. F. G. Clayton (Merck Sharp & Dohme, Ltd.) on "Diuretic Therapy with Saluric."

Wednesday, October 12

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, nurses' recreation room, Bedford General Hospital, at 7.45 p.m. Dr. L. L. Banks (Allen & Hanburys, Ltd.) on "Medical Problems in Pharmaceutical Practice."

BIOLOGICAL METHODS GROUP, SOCIETY FOR ANALY-

For veterinary preparations for the treatment and prevention of diseases in poultry (5)

Device, 798,227, by Bayer Products, Ltd., Kingston-upon-Thames, Surrey.

For pharmaceutical preparations for veterinary use, all containing liver extract and being for export to and sale in Belgium (5)

POSTUSIN, 798,647, by Winthrop Products, Ltd., Kingston-upon-Thames, Surrey.

For pharmaceutical preparations and substances (5)

ANAPROTIN, 799,006, by Uni-Chemie, A.G., Zurich, Switzerland, ASPELLIN, 804,836, by Radiol Chemicals, Ltd., London, S.W.15, CORTIMENT, 804,831, by Ferring, A.B., Malmö 9, Sweden.

For pharmaceutical preparations and substances, all being in jelly form (5)

MOORES AN-JEL, 803,695, by Moore Medicinal Products, Ltd., Aberdeen, Scotland.

For chemical preparations for killing weeds (5)

WEEDOBEN, 805,142, by Amchem Products, Inc., Ambler, Pennsylvania, U.S.A.

TICAL CHEMISTRY, and PESTICIDES GROUP, SOCIETY OF CHEMICAL INDUSTRY, Chemical Society, Burlington House, Piccadilly, London, W.1, at 7 p.m. Papers on "The Biological Assay of Insecticidal Residues."

DARTFORD BRANCH, PHARMACEUTICAL SOCIETY, Wellcome club, High Street, at 7.30 p.m. Annual dinner-dance.

ENFIELD CHEMISTS' ASSOCIATION, Firs hall, Green Lanes, Winchmore Hill, London, N.21, at 8 p.m. Supper-dance.

SOUTH LONDON AND SURREY PHARMACISTS' GOLFING SOCIETY, Purley Downs golf club, at 1.15 p.m. Extra meeting.

THAMES VALLEY PHARMACISTS' ASSOCIATION AND BRANCH, Griffin hotel, Market Place, Kingston-on-Thames, at 7.30 p.m. Supper-dance.

WESTERN [LONDON] CHEMISTS' ASSOCIATION, Wellcome Building, Euston Road, London, N.W.1, at 7.15 p.m. Dr. M. E. Rowbottom on "Some Aspects of the History of Pharmacy."

Thursday, October 13

CHEMICAL SOCIETY, Imperial College of Science and Technology, London, S.W.7, at 7.30 p.m. Tilden lecture: Professor R. A. Raphael on "Recent Studies on Many-membered Rings."

CHESTERFIELD BRANCH, PHARMACEUTICAL SOCIETY, Station hotel, at 8 p.m. Mr. J. R. Dale (one of the Society's inspectors) on "Recent Changes in the Poisons Rules."

HARROGATE BRANCH, PHARMACEUTICAL SOCIETY, Blue Bird café, Parliament Street, at 7.30 p.m. Mr. H. H. Featherstone (Hirst, Brooke, Goodalls, Ltd., Leeds) on "Colour Photography."

LEEDS BRANCH, PHARMACEUTICAL SOCIETY, Great Northern hotel, at 8 p.m. Film show.

NORWICH BRANCH, PHARMACEUTICAL SOCIETY, Briton brush factory, Wymondham, at 2.30 p.m. Visit.

SHEFFIELD BRANCH, PHARMACEUTICAL SOCIETY, Royal Victoria hotel, at 7 p.m. Annual dinner-dance.

SOMERSET BRANCHES, PHARMACEUTICAL SOCIETY, and NATIONAL PHARMACEUTICAL UNION, Moors café, St. James' Street, Taunton, at 4 p.m., N.P.U. branch meeting: Talk by Mr. J. O. Bond (a member of the N.P.U. executive) on "Current N.P.U. Matters"; at 5.15 p.m., tea; at 6.30, combined meeting: Mr. A. R. G. Chamings (a member of the Society's Council) on "Trends in Modern Medicine."

WOKING BRANCH, PHARMACEUTICAL SOCIETY, Red House hotel, at 8 p.m. Film show.

Friday, October 14

BIRMINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Imperial hotel, at 8 p.m. Sir Hugh Linstead (a secretary of the Society) on "A Comparison between Pharmacy in Britain and in Some Other Countries."

NORTHERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, Royal hotel, Inverness, at 8 p.m. Mr. H. W. Tomski on "Economics of Pharmacy."

WORLD TRADE

Spanish Petrochemical Venture. — An agreement has been reached between Dow Chemical International, Ltd., and Union Química del Norte de España, S.A. (Unquinesa), to construct a petrochemical plant in Spain.

India Cuts Imports. — The Indian Government announced a wide range of import cuts on October 1 to reduce the drain on foreign exchange reserves and to save an estimated thirty million rupees in the next six months. The new import regulations, effective for six months commencing October 1, lay down cuts and in some cases the total ban on a list of 107 items. Certain drugs and medicines have had their quotas reduced while imports of palm oil, "essential synthetic oils," and certain chemicals are banned altogether.

Looking Westwards. — British exporters should not neglect the Pacific seaboard of the United States. There was a rapidly growing population in the Western States which offered a large market potential for the United Kingdom producers, said Lord Rootes (chairman of the Dollar Exports Council) at a reception in London recently given by the Port of Los Angeles European trade mission. The possibilities of trade with California, and with Los Angeles in particular, were again stressed by Mr. B. J. Caughlin (general manager of the Port of Los Angeles). He said that there were 7 million people in the county of Los Angeles, and claimed that it had the fastest growing population in America. He claimed it to be the second largest manufacturing district in the U.S. As a Customs unit it received a revenue inferior only to the total collected in New York itself. Many new projects were to be completed in the port during the next five years.

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

THE INFLUENCE OF SEX on the catavolism of griseofulvin, *J. Pharm. Pharmacol.*, September.

THE BIOLOGICAL ASSAY of *rauwolfia schueli*, *J. Pharm. Pharmacol.*, September.

DENTIFRICE MARKETING in the United States, *Chem. Week*, August 20.

CHANGES in college chemistry teaching, *Chemical and Engineering News*, August 22.

PERSISTENCE OF IMMUNITY after administration of formalin-treated poliovirus vaccine, *Lancet*, October 1.

A TRIAL of continuous winter chemotherapy in chronic bronchitis, *Lancet*, October 1.

THE CHOLINERGIC RECEPTOR, *J. Pharm. Pharmacol.*, October.

DEMEETHYLCHLORTRIACRYLINE, *Brit. med. J.*, October 1.

CHEMICAL DIAGNOSIS of steatorrhoea, *Brit. med. J.*, October 1.

FREEZE-DRIED B.C.G. VACCINE, *Brit. med. J.*, October 1.

EFFECT of prolonged treatment with hypotensive drugs on renal function in hypertension, *Brit. med. J.*, October 1.

TRIAL of a new monoamine oxidase inhibitor in angina pectoris, *Brit. med. J.*, October 1.

ADVANCES IN ANTIBIOTICS, *Practitioner*, October.

DRUGS in the treatment of angina pectoris, *Practitioner*, October.

HYPOTENSIVE AGENTS and pressor substances, *J. Amer. med. Ass.*, September 17.

ACUTE VERSENALE NEPHROSIS, *J. Amer. med. Ass.*, September 17.

AMPHOTERICIN B in treatment of disseminated

moniliasis, *J. Amer. med. Ass.*, September 17.

LONDON MEDICAL SOCIETIES in the eighteenth century, *Proc. roy. soc. Med.*, September.

LEUKEMIA, *Med Press*, September 28.

ECONOMICS of animal health, *Vet. Rec.*, October 1.

A METABOLITE of carbomal, *Nature*, October 1.

SYNTHESIS of nicotinic acid nucleotides, *Nature*, October 1.

METHYMYCIN, biosynthesis of, *Chem and Ind.*, October 1.

DIGITOXIGENIN, biogenesis of, *Chem. and Ind.*, October 1.

TELEVISION

Figures in the columns represent number of appearances of the product during the week.

October 16-22	London	Midland	North	Scotland	Wales	South	N.E.	Anglia	Ulster
Alka-Seltzer ..	1	3	1	1	1	2	2	2	1
Anadin ..	4	1	1	4	4	1	—	—	—
André Philippe hair lacquer ..	1	—	—	—	—	—	—	—	—
Angettes ..	2	4	1	—	—	—	1	—	—
Askit ..	—	—	—	—	—	—	—	—	7
Aspro ..	4	—	4	1	5	—	—	1	—
Bisodol ..	—	—	—	—	—	—	—	—	1
Bristow's shampoos	4	3	3	—	—	3	—	—	—
California syrup of figs ..	—	—	1	—	—	—	—	—	—
Christy's lanoline face pack ..	1	1	1	2	—	—	—	—	—
Coldrex ..	2	2	2	2	2	2	2	2	2
Coliclean ..	—	—	2	—	—	—	—	—	—
Cooper's aerosols	3	3	2	3	3	3	2	2	2
Crookes Dekrasil capsules ..	—	—	2	—	—	—	2	—	—
Cuticura ..	—	2	2	2	—	—	—	2	—
Delsey ..	3	—	—	4	3	—	—	3	—
Euthymol tooth-paste ..	—	1	1	1	1	—	—	—	—
Farley's infant foods	3	1	2	—	—	—	—	—	2
Fynnon salt ..	1	2	2	2	2	2	2	1	1
Guavin ..	—	—	—	—	—	4	—	—	—
Hcmotabs ..	—	—	2	—	—	—	—	—	—
Hi-Glo shampoo ..	3	3	3	—	3	3	3	—	—
Horlicks ..	4	3	3	2	2	3	2	2	2
Imperial Leather soap	2	3	3	2	2	2	1	2	1
Izal tissues ..	—	—	—	—	—	—	1	—	—
Johnson's baby suds powder, shampoo	3	3	3	3	3	3	3	3	3
Kleenex ..	3	2	2	3	2	2	2	2	3
Kruschen salts ..	—	—	4	—	—	—	—	—	—
Loxene medicated shampoo ..	3	3	3	3	3	3	3	3	3
Milk of Magnesia tablets ..	—	2	2	—	—	—	—	2	—
Penetrol inhalant ..	3	—	—	3	3	3	3	—	—
Philips electric blankets ..	1	1	1	—	—	—	—	1	—
Philishave ..	5	5	5	5	5	5	5	5	5
Phillips tooth-paste ..	1	—	—	—	—	—	—	—	—
Rennies ..	2	2	2	3	2	2	2	2	3
Rinstead pastilles ..	1	1	1	—	—	1	1	—	1
Sebbix shampoo ..	—	—	—	—	—	—	—	—	1
Silvikrin liquid shampoo ..	2	3	4	3	3	3	4	3	3
T.C.P. ..	1	1	1	—	—	—	—	—	—
Tru-Gel ..	2	2	2	1	3	2	3	—	3
Vykmin ..	1	1	1	—	1	1	1	1	1
Winspray products ..	—	—	—	—	—	—	—	—	1
Yeast-vite ..	1	1	2	1	2	2	2	2	2

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED
From the "Official Journal (Patents),"
September 28

Process for the manufacture of substituted pyrazolopyrimidines, CIBA, Ltd, 854,631.

Phosphate emulsifying agents, Armour & Co. 854,925.

Process for the production of heterocyclic carboxylic acids of the pyrazole series, as well as their esters and salts, J. R. Geigy, A.G. 854,950.

Preparation of 12 α -halo-16 α , 17 α , 21-trihydroxy-4-pregnene-3,11,20-triones and 16 α , 21-acetyl esters thereof, American Cyanamid Co. 854,672.

Process for the manufacture of hydrophilic high molecular weight substances from dextran substances, Pharmacia, A.B. 854,715.

Substituted pyrazolo-pyrimidines, CIBA, Ltd. 854,633-34.

Azotobacter concentrates obtained by submerged aerobic fermentation, J. Vintika, M. Rosa, and J. Barta, 854,918.

Polyglycol ethers, Farbenfabriken Bayer, A.G. 854,952.

Ion-exchange resins, United Kingdom Atomic Energy Authority, 854,009.

Manufacture or treatment of lithium aluminium hydride addition products, Olin Mathieson Chemical Corporation, 854,527.

Method of preparing 4-amino-3-isoxazolidinones, J. Smrt, J. Beranek, and J. Sicher, 854,922.

Process for the preparation of organodichloroboranes, Olin Mathieson Chemical Corporation, 854,924.

Aromatic sulphonyl amino compounds containing trifluoromethyl radicals, Farbenfabriken Bayer, A.G. 854,956.

Pyrimidine compounds and means of producing same, Parke, Davis & Co. 854,959.

Trifluoromethyl substituted N-alkylated dibenzazepines and dihydribenzazepines and process for the preparation thereof, Smith Kline & French Laboratories, 854,552.

Method of stabilising sulphanamides, American Cyanamid Co. 854,928.

Stereospecific substituted cyclohexylamines and process for preparing same, Schering Corporation, 854,932.

Process for the production of hydrazine, hydrazine hydrate or hydrazine salts, Farbenfabriken Bayer, A.G. 854,997.

Derivatives of lysergic acid, Westminster Bank, Ltd. 854,569.

Process for the production of itaconic anhydride, C. Pfizer & Co., Inc. 854,999.

Purification of caprolactam, Allied Chemical Corporation, 854,538.

Container closure system, Fenwal Laboratories, Inc. 854,571.

British Patent specifications are obtainable (price 3s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2.

WILLS

MR. E. P. GREENHALGH, M.P.S., 142 Broom Road, Teddington, Middlesex, left £5,456 (£5,330 net).

MR. S. H. HADEFIELD, M.P.S., The Bull and Royal hotel, Preston, Lancs, left £6,828 (£6,626 net).

MR. J. W. HARRISON, M.P.S., 169 York Road, West Hartlepool, co. Durham, left £14,619 (£14,223 net).

MR. F. W. HILL, M.P.S., Glencarie, Busbridge Lane, Godalming, Surrey, left £2,730 (£1,394 net).

MRS. M. HINCHLIFFE, J.P., B.Sc., M.P.S., The Kulm, Hall Green Road, Dukinfield, Cheshire, wife of Mr. G. Hinchcliffe, M.P.S., left £19,388 (£19,219 net).

MR. S. W. HODGE, M.P.S., 311 Brownhill Road, London, S.E.6, left £10,416 (£9,460 net).

MR. F. W. JACKSON, M.P.S., 12 West Street, Havant, Hants, left £15,987 (£15,538 net).

MR. F. E. KNELLER, M.P.S., 54 Manor Road, North Lancing, Sussex, left £1,250 (£1,105 net).

MR. J. W. LEIVERS, M.P.S., 5 Denehurst Gardens, Woodford Green, Essex, left £38,536 (£31,133 net).

MR. G. W. LEWIS, F.P.S., Market Square, Bicester, Oxon, left £20,162.

MR. E. G. MARTIN, 20 All Saints Avenue, Maidenhead, Berks, who qualified as a chemist and druggist in 1899, left £12,974 (£12,927 net).

MR. B. MILLAR, M.P.S., 56 Victoria Road, Darlington, co. Durham, left £14,226 (£14,185 net).

MR. G. H. ROCK, M.P.S., 249 Dodworth Road, Barnsley, Yorks, left £14,102 (£13,098 net).

MR. K. RUSHTON, M.P.S., 48 Kenwood Road, Stretford, Manchester, left £2,562 (£1,611 net).

MR. W. SHADFORTH, F.P.S., Ducks Hill Grange, Northwood, Middlesex, left £953 (£775 net).

MR. V. SLATER, M.P.S., 79 Moorside Avenue, Smithills, Bolton, Lancs, left £8,451 (£6,974 net).

MR. J. B. SMITH, M.P.S., 14 Vincent Road, Isleworth, Middlesex, left £9,276 (£6,787 net).

MR. H. L. WARNER, M.P.S., High Park, County Lane, Albrighton, Wolverhampton, Staffs, left £17,056 (£16,372 net).

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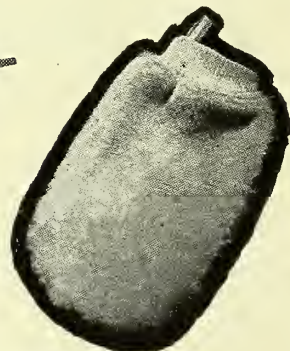
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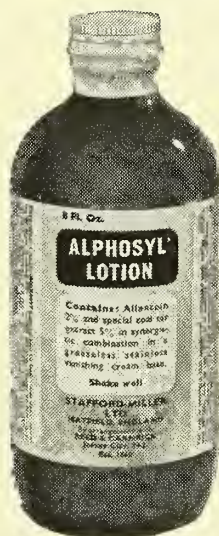
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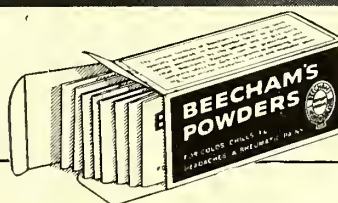
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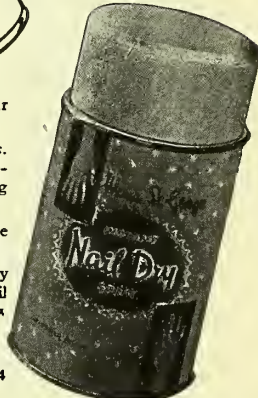
INSTANT NAIL DRY is an absolute **MUST** for your counter!

INSTANT NAIL DRY *dries nail enamel in seconds*. It protects the varnish and doubles its life, prevents chipping and flaking, enriches the cuticles and gives lasting lustre and health to the nails.

INSTANT NAIL DRY is quick and easy—a touch of the Aerosol button is all that is needed.

INSTANT NAIL DRY is available **NOW**, in Handy Aerosol packs, costing only 6/3, plus 3/1½d P.T., to retail at 12/6d. Order **NOW**—to reap maximum benefit from new national advertising—direct from

Maria St. George LTD. 12 PHILLIMORE TERRACE, W.8. Tel: WEStern 6534



Yalcs
NYLON ELASTIC HOSIERY
incorporating **BRI-NYLON**

Recommend Yalcs with confidence to women with actual or incipient varicosities. Yalcs give all the therapeutic support of true two-way stretch—without putting a strain on vanity!

Yalcs are available ex stock — at full trade discount — in two types:

Superfine Retailing at 63/- pair

SERVICE Retailing at 53/3 pair

Yalcs Service may be supplied against N.H.S. prescription in Nylon Elastic Yarn (Lightweight) Two-Way stretch.

Yalcs Elastic Socks for men also available.

Display material, leaflets, shade cards available from Sales Agents:

GLENSIDE (LONDON) LTD, 37 Percy St, London, WI

LENTON
TWO-WAY STRETCH
Surgical Hosiery

For strong support in severe cases of varicosity, Lenton stockings are made from hard-wearing cotton-covered elastic. Soft-textured, with stretch Nylon welts, they can be recommended to your customers for comfort and therapeutic firmness. Lenton can be dispensed against prescriptions for "two-way stretch elastic yarn hosiery." They are available in two styles, in small, medium and large sizes.

ABOVE KNEE RETAILING AT 53/3 A PAIR

BELOW KNEE RETAILING AT 45/9 A PAIR

Open-toed for coolness, with closed heels for a snug fit, Lenton hosiery can be worn by both men and women. Lenton are made by the manufacturers of Yalcs stockings.

Details from Sales Agents:

GLENSIDE (LONDON) LTD., 37 PERCY ST., LONDON W.1

Rastinon

Price reduced by another 10%
from October 10th*

New basic NHS and trade price

Bottles of 100 tablets **21/-** (formerly 23³/₄)

Bottles of 500 tablets **99/-** (formerly 110/-)

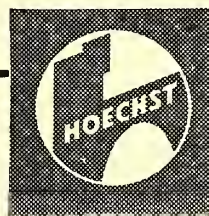
Rastinon, the standard oral treatment of diabetes. More than 1,250,000 diabetics throughout the world are under treatment with Rastinon (tolbutamide).

** In October 1959 a 10% price reduction was made*

HOECHST PHARMACEUTICALS LIMITED, SLOUGH, BUCKS

Sole distributors in the United Kingdom:

HORLICKS LIMITED, SLOUGH, BUCKS



Velouty

de DIXOR

POWDER CREAM

There is always a regular demand for this beauty preparation. Persistent National advertising is increasing its popularity and creating valuable sales which you can share. Display Velouty Powder Cream now.



Shades
IVORY NATURAL PEACH SUNGOLD
OCHRE APRICOT and RACHEL
TUBES No. 2 No. 3
 TRADE 7/6 doz. 12/3 doz. RETAIL 1/3 ea. 2/1 ea.
 JARS: TRADE 17/2 doz. RETAIL 2/11

DIXOR

Overnight CREAM

FOR BEAUTY IN THE MORNING

During the hours of sleep Dixor Overnight Cream will work with nature to repair damage done to the delicate tissues of the skin during the daytime and help to restore the skin to vital radiant health.

TRADE 15/- DOZ.
 RETAIL 2/6 EACH.



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Limited

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TELEPHONE
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R. Elastic Yarn Stockings
2-way stretch

In a case like
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BURSON

Burson Stockings, made exclusively on special knitting looms, are the product of many years' intensive research into the making of surgical stockings.

Always dispense and recommend Burson 2-Way Stretch Hosiery and ensure your customers' complete satisfaction. The quality—finish—colour and durability of Burson Hose make them the first choice of those who appreciate the best. Burson Stockings are fully fashioned and virtually indiscernible in use.

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AVAILABLE FREE ON REQUEST WITH BURSON STOCKINGS:—

- Instruction Chart with details for measuring, fitting and exact adjustment to fit and tension.
- Individual Measurement and Order Forms.
- Instructions for mending and washing.
- Illustrated leaflets for your customers.

BURSON*

TWO-WAY STRETCH HOSIERY
IS MADE FROM LASTEX YARN

Your clients may well prefer these wonderful Burson Nylon Stockings, made on the identical, exclusive machines which have made Burson leaders in their field, and which can now be dispensed under the N.H.S.

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Also at 6 CROW STREET, DUBLIN

*Burson is the registered trademark of the Kendall Company
 Boston, Mass., U.S.A.



good reasons why
it pays you to sell
BEMAX

- 1** BEMAX is kept constantly before your customers by press and magazine advertising *all year round*.
- 2** BEMAX is recommended by doctors.
- 3** BEMAX is not a medicine—but a pleasant food additive, popular with the whole family.
- 4** BEMAX is stabilized wheat germ—27% protein, plus the whole vitamin B complex, plus iron—all in a *natural* state.
- 5** BEMAX is equally good for the toddler, the adult, the old-age pensioner.
- 6** BEMAX taken every day, sprinkled simply on food improves health (and helps maintain good health), builds up resistance, stimulates appetite and aids digestion.

*You—and your customers—
are bound to benefit from*

BEMAX

STABILIZED WHEAT GERM

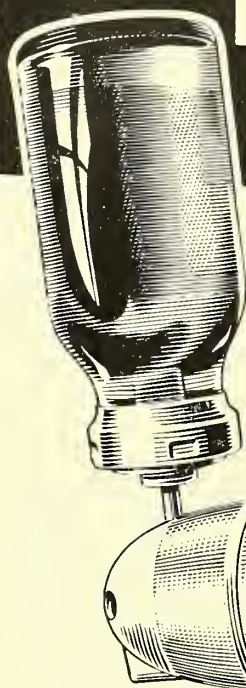
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Great Advance in Aerosol Therapy for **ASTHMA**

PRESSURISED

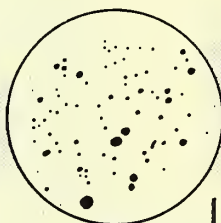
BROVON

Asthma Inhalant provides an effective therapeutic dose *within seconds*

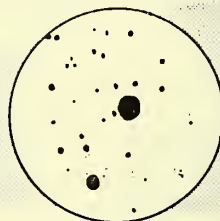


1 High Production of Utilisable Aerosol

Obviously, particles of an aerosol are therapeutically useless if either:—(a) The particles are too large to pass into the respiratory bronchioles. (b) The particles are so small that they are swept back in the expired air. By Incorporation of a new and unique device, about 80% of the particles yielded by Pressurised Brovon Inhalant are within the optimum range for penetration into the finest ramifications of the bronchial tree, and absorption there.



Approximately 80% of the particles yielded by Pressurised Brovon Inhalant are utilisable—the highest proportion yet achieved in any aerosol therapy from a liquid inhalant.



Less than 30% of the particles yielded by an asthma inhalant from a hand-operated inhaler are utilisable, the remainder being too coarse.



Less than 10% of the particles yielded by conventional aerosols are utilisable; in fact, their performance is much inferior to that of a manually-operated inhaler.

Retail Price each:
17/6 Complete with Adaptor.
14/6 Refill only.
3/- Brovon Adaptor.

Price per Doz. to Retailer:
147/- Exempt P.T.
121/9 Exempt P.T.
25/3 Exempt P.T.

2 Pharmacological soundness

Pressurised Brovon Inhalant combines the rapid action of adrenaline with the slower but prolonged action of atropine, providing an antispasmodic combination with an immediate yet sustained action.

3 Visual check on contents of bottle

... so that the user has full warning when his inhalant is running low.

4 Accurate dosage

An accurate metering device allows a measured quantity—and no more—to be emitted, and pressure must be released for a few seconds to allow the device to reset. Needless or unintentional over-dosage and waste are thus eliminated.

5 Complete safety

The propellant is non-toxic, non-inflammable and stable. The bottle is very strong and, as an additional safeguard, is enclosed in a tough, shatterproof, plastic cover which prevents splintering of the bottle if broken.

6 Compactness

The complete unit is smaller than even a small hand-operated inhaler and can be carried inconspicuously in the handbag or pocket.

M.H.P.

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Atropine Methonitrate B.P.C.	Adrenaline B.P. (Epinephrine)	0.50% w/v
(Methylatropine Nitrate).....	Chlorbutol B.P.....	0.50% w/v
		0.14% w/v

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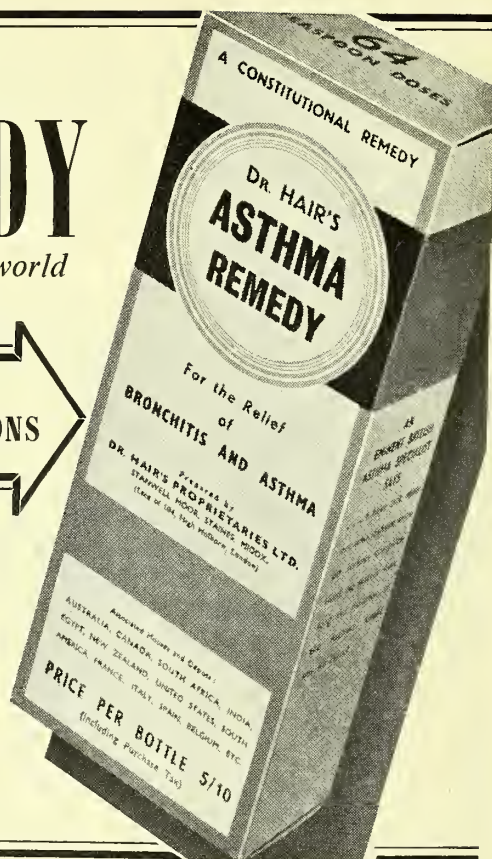
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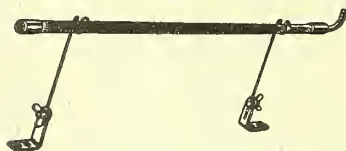
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Keep your windows clear of mist in all weathers.

WILL NOT SAG between supports.

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the Dry Shampoo Powder in the Sell-On-Sight Polythene Tube

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PRICES

Effective Oct. 10, 1960

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New basic costs to the National Health Service of Chloromycetin Capsules 250 m.g. and Suspension Chloromycetin Palmitate will be :—

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infections of the
mouth and throat.

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Here's a Christmas line that will really sell! Electric home hair clippers which will save your customers time and money. Completely safe . . . no professional skill needed . . . just plug in the clippers and guide them, they do the work.

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6 $\frac{3}{4}$ %

ON NEW CARS

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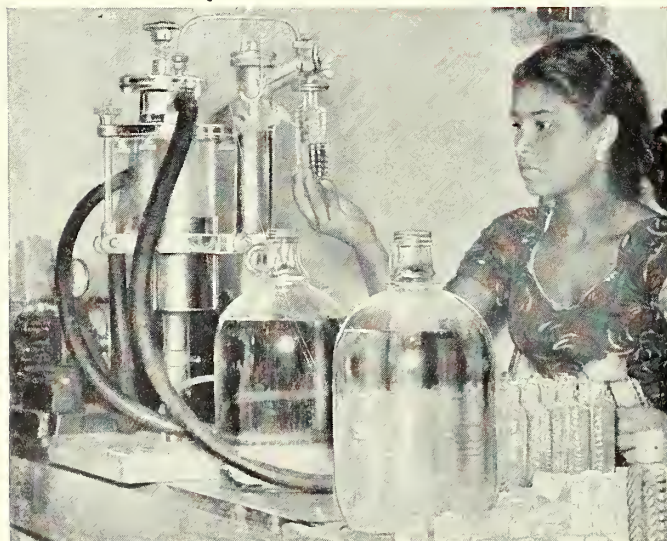
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Designed for quick cleaning, the Albro liquid filler can easily be switched from one product to another thus reducing filling costs to a minimum.

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Pastilles containing: TYROTHRIN 1.0 MG
CETYL PYRIDINIUM CHLORIDE 2.5 MG

NYCET Pastilles are invaluable for infections of the throat and mouth, combining a powerful locally acting antibiotic and a bactericidal wetting agent.

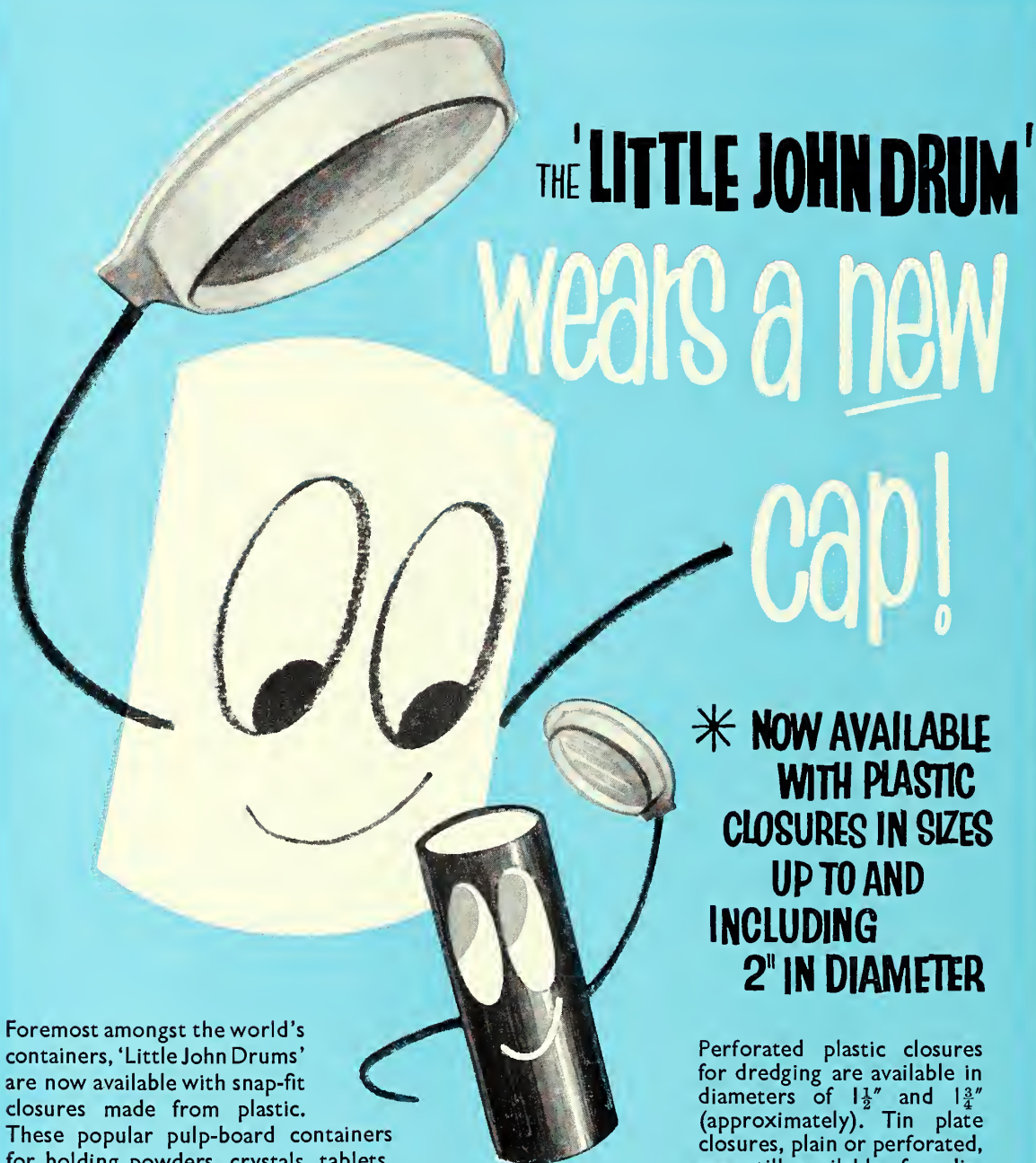
There is effective essential contact between the constituents and the inflamed mucosa. By decreasing the virulence of pharyngeal organisms NYCET Pastilles may be beneficial in the treatment of the common cold by reducing the tendency to secondary infections.

NYCETS are especially suitable for children because of their pleasantly flavoured base and complete absence of side effects.

PACK CONTAINS TWELVE PASTILLES
INDIVIDUALLY WRAPPED IN FOIL STRIP.



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* NOW AVAILABLE
WITH PLASTIC
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UP TO AND
INCLUDING
2" IN DIAMETER

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A Plastic Closure

-by

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Your product
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SIZE

3 HEAT CONTROL
FOR SAFETY AND
SOUND SLEEP

DETACHABLE, WASHABLE COVERS

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SIZE

3 HEAT CONTROL
FOR SAFETY AND
SOUND SLEEP

DETACHABLE, WASHABLE COVERS



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said

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to travel
than to
arrive"

*but when your search is for fine
chemicals it is better to arrive at . . .*

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Phone: WELWYN GARDEN 5001 (10 lines) Telex: LONDON 28676

Cables: CARNEGIES, WELWYNGARDENCITY



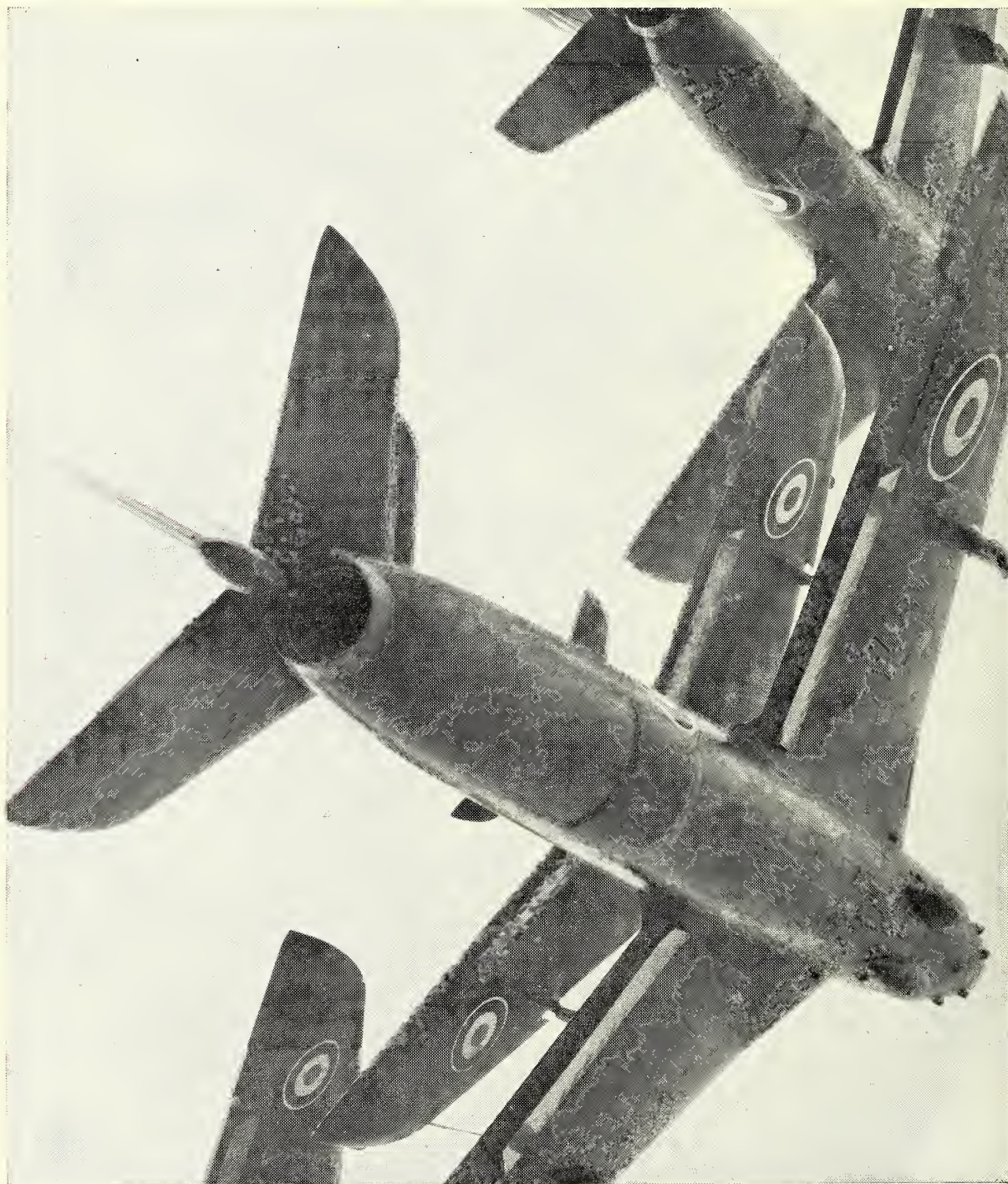
TREE OF LIFE
Regd. Trade Mark

Regd
NEOPHRYN *keeps them flying*

The Royal Air Force, true to its exacting standards, demands that its jet pilots should be among the fittest men in the world. It is of vital importance that all their senses are sharp to cope with the demands of flying faster than sound. A stuffy nose can cause the "grounding" of pilots of the fastest new planes. Neophryn removes nasal congestion. Its prolonged action has no side effects to trouble a pilot's clear-headed concentration. Men who cannot afford to have stuffy noses use Neophryn*.

**l-m-hydroxy- α -methylaminomethyl benzyl alcohol hydrochloride*

RETAIL PRICE **3/6d.**



BAYER PRODUCTS, DIVISION OF WINTHROP GROUP LTD, SURBITON-UPON-THAMES, SURREY.



Caffeine

Caffeine Sodium Salicylate

Caffeine Sodium Benzoate

Caffeine Citrate

Theophylline

Theophylline-Ethylenediamine

Oxyethyltheophylline

Dihydroxypropyltheophylline

Oxypropyltheophylline

8-Chlorotheophylline



C. H. BOEHRINGER SOHN · INGELHEIM AM RHEIN

REGD

VACCO national

A new Christmas gift line—**VACCO TEA FLASKS** (with the built-in milk bottle) — backed by powerful, nation-wide T.V. advertising during December . . . plus individual gift-wrapping and special 'bonus offer' pack . . . that's your big profit news from VACCO!



T.V. Promotion



VACCO make news this Christmas—news that means extra sales, bigger profits for you on popular VACCO Tea Flasks!

- * **You'll profit** from tremendous demand created by nation-wide T.V. advertising during December.
- * **You'll profit** from bumper 'bonus offer' pack—16 individually gift-wrapped VACCO Tea Flasks.
- * Plus colourful, compelling point-of-sale showcard featuring 'gift' angle.
- * **Plus generous 5% bonus discount for this special VACCO Christmas promotion.**

Fastest off your counter this Christmas! That's the VACCO Tea Flask... with this gay, colourful Christmas gift sleeve. Order now from your usual wholesaler.

VACCO LIMITED, Grosvenor Gardens House, London, S.W.1.



IT'S A PITY BUT

several labour and material cost increases oblige us, after more than two years without change, to increase the retail price of the Pal Injecto-matic razor set by 6d. to 6/10d. from 17th October, 1960.

NEW TRADE PRICE 47/8 plus 11/11 P.T.

ORDER TODAY FOR EXTRA PROFIT! All orders for Pal Injecto-matic Razors received before Monday 17th October will be delivered at the old price of 44/2 plus 11/0½ P.T. per dozen giving an extra profit of 6/- per dozen.

Place your order today through your local wholesaler or direct with Ever-Ready Razor Products Ltd. Minimum direct order £4 (excl. P.T.) including other Ever-Ready lines.

PAL

**INJECTO-MATIC
RAZOR SET**

6/10

from 17th OCTOBER



MASSIVE NATIONAL ADVERTISING CAMPAIGN WITH OVER 187 MILLION IMPACTS STARTS NOVEMBER 16 to help you achieve your biggest-ever Autumn/Christmas razor sales and to familiarise your customers with the new price. How are your stocks?

**PAL INJECTO-MATIC RAZOR
SET WITH 10 BLADES**

—still outstanding value at **6/10**

**EVER-READY RAZOR
PRODUCTS LIMITED**

London & New York

PRECISION  PRODUCTS

Made in Great Britain

I.C.I.—PIONEERS IN PENICILLIN

With the approach of winter, now is the time to ensure that you have adequate stocks of this most valuable antibiotic to meet the heavy seasonal prescribing. The penicillin preparations you are likely to need are listed below.

Trade prices for the 'ICIPEN' V and 'PENAVALON' V range of Penicillin V preparations — the most efficient oral penicillin

'ICIPEN' V TABLETS

Penicillin V potassium salt
300 m.g. (0.5 mu.)

Containers of 12... .. 11/10d. each
Containers of 100... .. 86/- each
Containers of 500... .. 412/6d. each

'ICIPEN' V SYRUP

150 mg. penicillin V per teaspoonful
(5 ml.) of prepared syrup

Containers of 30 ml. (approx. 1 fl. oz.
when dispensed) 6/- each
Containers of 60 ml. (approx. 2 fl. oz.
when dispensed) 10/7½d. each

'PENAVALON' V TABLETS

Penicillin V potassium salt

Scored tablets (a) 125 mg.

Containers of 12... .. 5/4d. each
Containers of 100... .. 36/6d. each
Containers of 500... .. 172/6d. each
Containers of 1,000... .. 344/- each

Scored tablets (b) 250 mg.

Containers of 100... .. 72/- each
Containers of 500... .. 343/- each
Containers of 1,000... .. 666/8d. each

'SULMEZIL' V—for combined penicillin and sulphonamide therapy

'SULMEZIL' V SUSPENSION

Each teaspoonful (3.5 ml.) of prepared
suspension is equivalent to one
'Sulmezil' V tablet.

Bottles of 2 fl. oz. 8/- each

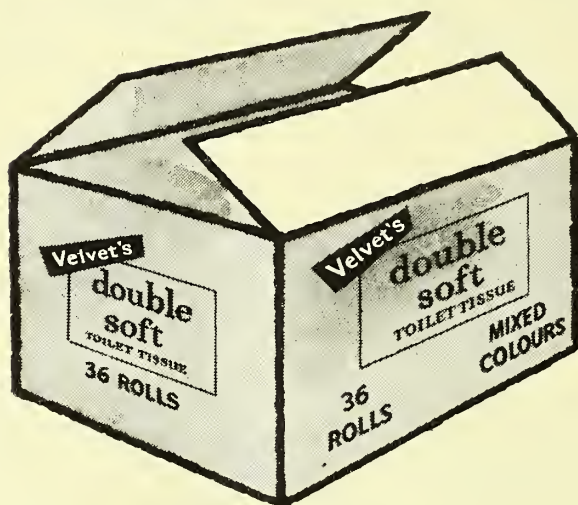
'SULMEZIL' V TABLETS

Each tablet contains 0.5 gramme 'Sulphamezathine' (Sulphadimidine B.P.) and 60 mg. penicillin V as calcium salt.

Containers of 25... .. 7/6d. each
Containers of 100... .. 25/6d. each
Containers of 500... .. 116/- each



Now this one case



takes the place of eight...



because it contains the equivalent of single
and double packs in all four colours

Snow White
Petal Pink
Sky Blue
Primrose



- * Only Velvet offer full size coloured soft 2-ply toilet rolls you can sell at 1/3 each or two for 2/4—so that you have all the advantages of double packs without having to stock them.
- * And with Velvet you can make more profit, too. You still make 8d. when you sell two rolls... and you make as much as 5d. when you sell a single roll.

Velvet's

double soft

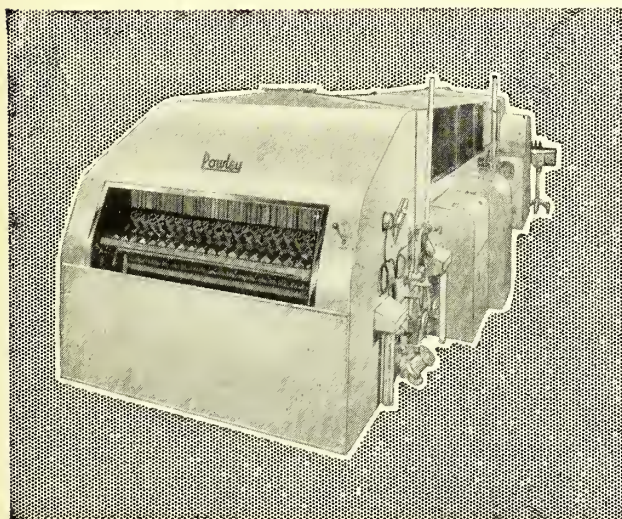
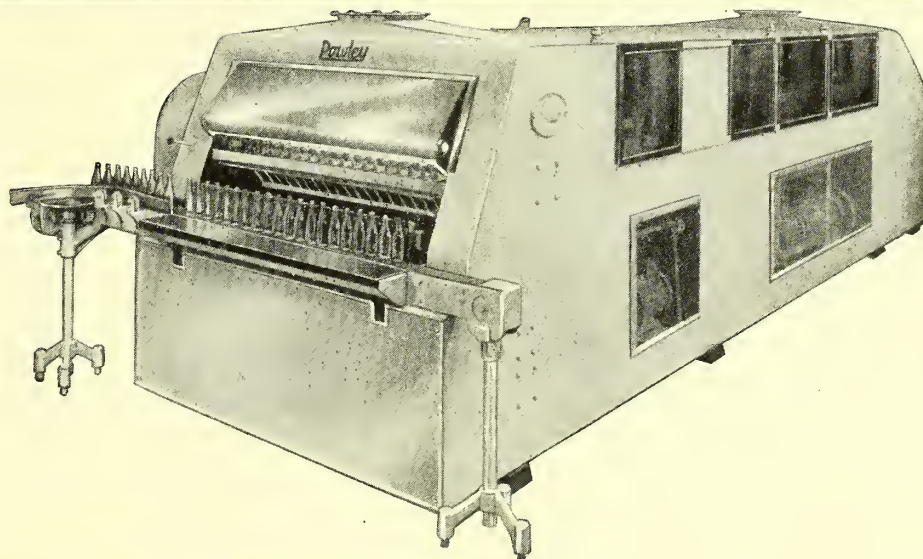
TOILET ROLLS

Cases containing 36 rolls of all one colour are, of course still available

VELVET CREPE PAPER CO. LIMITED, Woodside End, Alpertons, Middlesex

The **NEW** **CYCLOPS** Bottlewasher

IS ROCKETING UP IN POPULARITY



and here are some of the reasons why

- ★ truly competitive price.
- ★ high quality cleaning efficiency.
- ★ superior label removal facilities.
- ★ basic mechanical simplicity.
- ★ robust but compact construction.
- ★ clean modern appearance.

These are only a few of the factors which are causing increasing numbers of bottlers to turn to the 'Cyclops'. For details of a machine to suit your needs please write to the address below.

R. POWLEY & SONS LTD.

ST. MARKS ROAD • SUNDERLAND • ENGLAND

Tel.: 4846/7

Telegrams and Cables: "POWLEY" SUNDERLAND



WINTER'S HERE—time to sell

Dreamland

The Electric Blanket with the BIGGEST CONCENTRATED PROMOTION



You mustn't miss Dreamland—the electric blanket which gives all-through, all-over warmth. You mustn't miss Dreamland—with its hottest-ever advertising campaign, its family peak-hour spots on *all* television networks, its eye-catching sales aids, its £5,000 prize competition—and its extra 5% discount for *you*! You *might* miss Dreamland and be left right out in the cold—if you don't order *now* . . . and order *plenty*.

EASIPower APPLIANCES LIMITED • 30 HIGH ST • SOUTHAMPTON

Telephone: SOUTHAMPTON 27947/8

SPECIAL AUTUMN BONUS

ON 4
BRISTOL-MYERS*
PRODUCTS

*Proprietors Angier Chemical Co.

G ADVERTISING SUPPORT!

PRESS Powerful, eye-catching advertisements in
MASS-CIRCULATION SUNDAY NEWSPAPERS

TV 168 15-second spots on LONDON, MIDLANDS, NORTH
and TYNE-TEES NETWORKS

DISPLAY ANGETTES will be shipped in handsome
Display Outers (1 doz. to an outer). Counter Display Cards
are available.

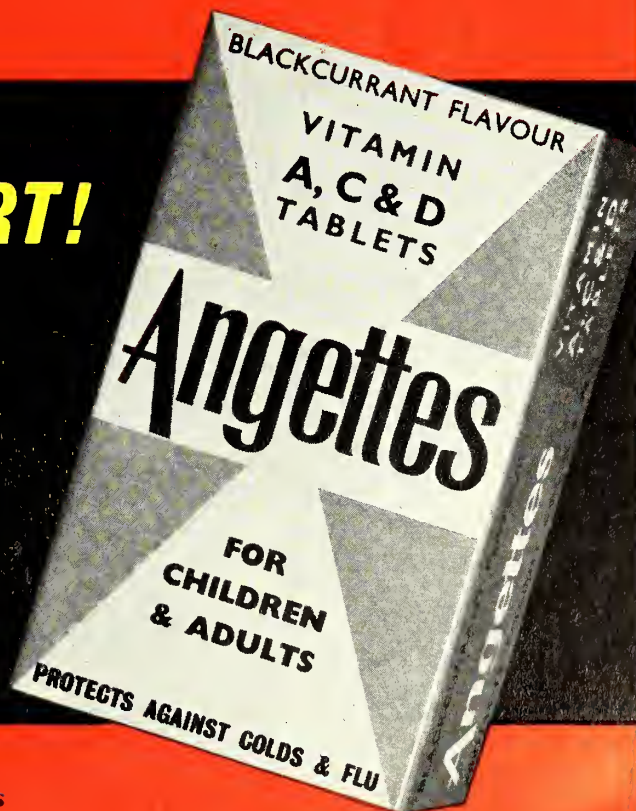
See back page for Bonus offer and price details

INTRODUCING

NEW ANGETTES

Here's a wonderful new Bristol-Myers product to help bump up your profits! NEW ANGETTES — blackcurrant-flavoured vitamin tablets specially formulated so that regular usage guards the taker against colds and 'flu. ANGETTES have 3 BIG ADVANTAGES: *Extra Vitamin 'C'* (40 milligrams), *Value* — 30 tablets for 3/6d, and *Flavour* — Delicious, consumer-tested blackcurrant flavour.

Outstandingly successful test market operation for New ANGETTES last winter shows a very large and growing demand for a simple vitamin product of this kind.



Sell SUPAVITE

—wonderful anti-tiredness
vitamin formula



NOW IN SINGLE CAPSULE FORM TOO!

Consumer demand for SUPAVITE this year shows marked upward trend! And now, to boost your sales even further, we are widening SUPAVITE's appeal by introducing it in single-capsule form too. This is the result of Consumer Research indicating there is a strong market for sales of Single as well as Double SUPAVITE.

Remember—though the single SUPAVITE capsule is smaller than either double capsule, its formula is identical with that of the one black and one amber capsule combination of the existing brand.

IMPORTANT—Single-capsule SUPAVITE is a companion line. Benefit from the brand's total appeal and maximum profit by stocking both Single AND Double-SUPAVITE.

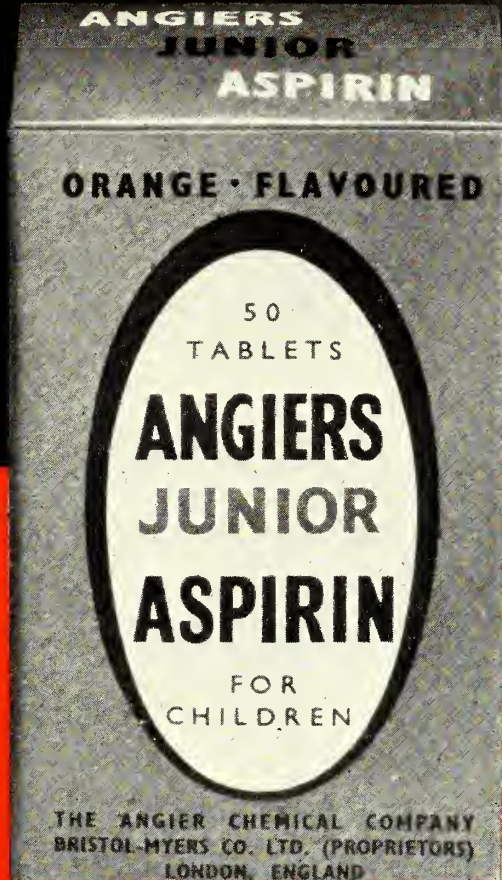
HEAVY ADVERTISING *features*
both single and double capsule Supavite

in these mass-circulation newspapers and magazines:
Dominating advertisements will appear regularly in
DAILY TELEGRAPH, SUNDAY EXPRESS, SUNDAY DISPATCH,
WOMAN'S OWN, READER'S DIGEST and RADIO TIMES

Distinctive Packs—Easy-to-erect Twin-Pack Display Units

Big new advertising to speed sales of **ANGIERS** **JUNIOR** **ASPIRIN**

Brand leader in children's aspirin field



**PRESS
TV TOO!**

Frequent striking advertisements in MASS-CIRCULATION SUNDAY NEWSPAPERS and influential housewife's magazine WOMAN'S OWN Impressive new series of commercials broadcast regularly on LONDON, MIDLANDS and NORTHERN NETWORKS

Take advantage of this strong advertising campaign by stocking up now with fast-selling Angiers Junior Aspirin

**MAKE USE OF "1 DOZEN" DISPLAY OUTERS FOR
EFFECTIVE COUNTER DISPLAY!**

Don't forget
to maintain stocks of
ANGIERS EMULSION
a good selling line

See back page for Bonus offer and price details



AUTUMN BONUS OFFER

*on all orders for assorted
Bristol-Myers preparations
exceeding £10 at list prices*

- Each dozen will be charged as 11
- 5% discount will be allowed for 14 days display
- Purchase tax will not be charged on bonus goods

PRICE LIST

ANGIERS EMULSION

Medium Size	30/- per doz.	Retail Price 3/10 each (inc. P.T.)
Family Size	50/4 per doz.	Retail Price 6/6 each (inc. P.T.)

ANGIERS JUNIOR ASPIRIN

Bottle of 50 tablets	11/- per doz.	Retail Price 1/7 each (inc. P.T.)
----------------------	---------------	-----------------------------------

ANGIERS SUPAVITE

Boxes of 30 capsules	43/6 per doz.	Retail Price 5/- each (No P.T.)
Boxes of 60 capsules	78/4 per doz.	Retail Price 9/- each (No P.T.)
Family Pack of 120 capsules	141/4 per doz.	Retail Price 16/3 each (No P.T.)
Single Capsule 21's	43/6 per doz.	Retail Price 5/- each (No P.T.)
Single Capsule 42's	78/4 per doz.	Retail Price 9/- each (No P.T.)

ANGETTES

Bottles of 30 tablets	28/- per doz.	Retail Price 3/6 each (No P.T.)
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Offer finally closes 31st October

BRISTOL-MYERS SPECIAL AUTUMN BONUS

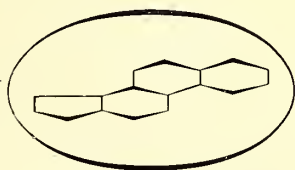


Announcement

The Pharmaceuticals Division of I.C.I. are proud to announce that they have entered into an arrangement with the Syntex Corporation to collaborate in the development and production of steroid compounds to be marketed in Great Britain and the Commonwealth.

Syntex have a fine reputation for their research work in the field of steroid chemistry. They were in fact responsible for the invention of the first large scale manufacturing process for progesterone. It was from this work that the Syntex organisation developed, and many of the steroid compounds now in regular use have emanated from the Syntex laboratories in Mexico. During the last twenty years Syntex research workers have contributed no fewer than 300 articles on steroids to the world's scientific journals, a record unequalled by any other organisation.

Hitherto Syntex have sold their steroids in bulk or have licensed other pharmaceutical manufacturers to produce under Syntex patents. In future their products will appear under the joint I.C.I./Syntex label and I.C.I. will collaborate with this organisation in both research and manufacture in the steroid field.



THE SYNTEX SYMBOL



The modern weigh is to sell a **MAYFAIR** every day



THE "MAYFAIR" PERSONAL WEIGHER No. 206 is a good looking, efficient, economically priced weighing machine. Available in various attractive colours—white, powder blue, April pink, spring green or pale primrose. It is the ideal machine for regular weighing in the privacy of one's own home. The "Mayfair" is being backed by regular advertising in the national Women's journals and T.V. STOCK and SELL the "Mayfair"—NOW!



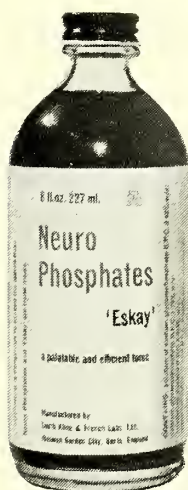
SALTER

Geo. Salter & Co. Ltd., West Bromwich



Benzedrex Inhaler

gives effective and prolonged relief of nasal congestion. In the handiest form for pocket or handbag, it can be used inconspicuously under all conditions and contains no messy fluids.



Neuro Phosphates,

a classic among tonics, is widely prescribed—and taken—with confidence. This appetite restoring tonic is as pleasant to take as an aperitif.



Smith Kline & French Laboratories Ltd
Welwyn Garden City, Herts

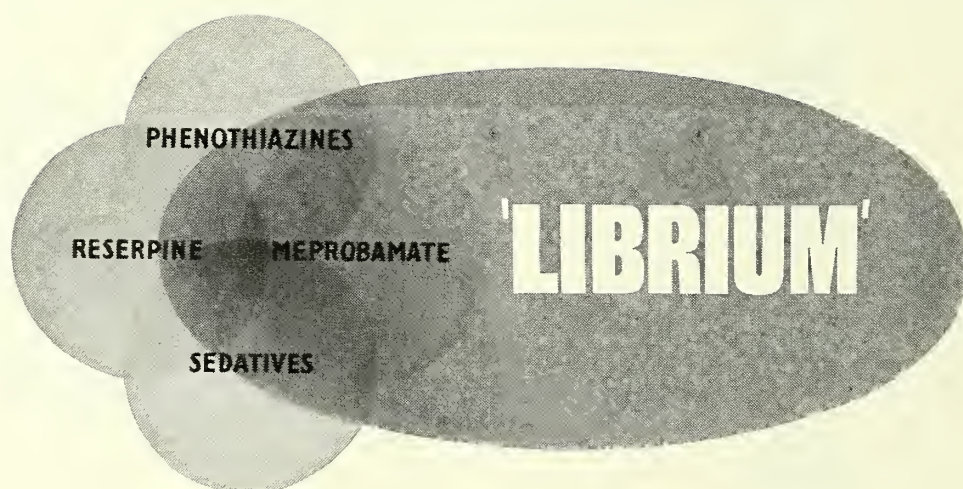
'Benzedrex' and 'Neuro Phosphates' are trade marks

BXN:TA30

'LIBRIUM'

TRADE MARK

BRAND



The successor to the tranquillizers

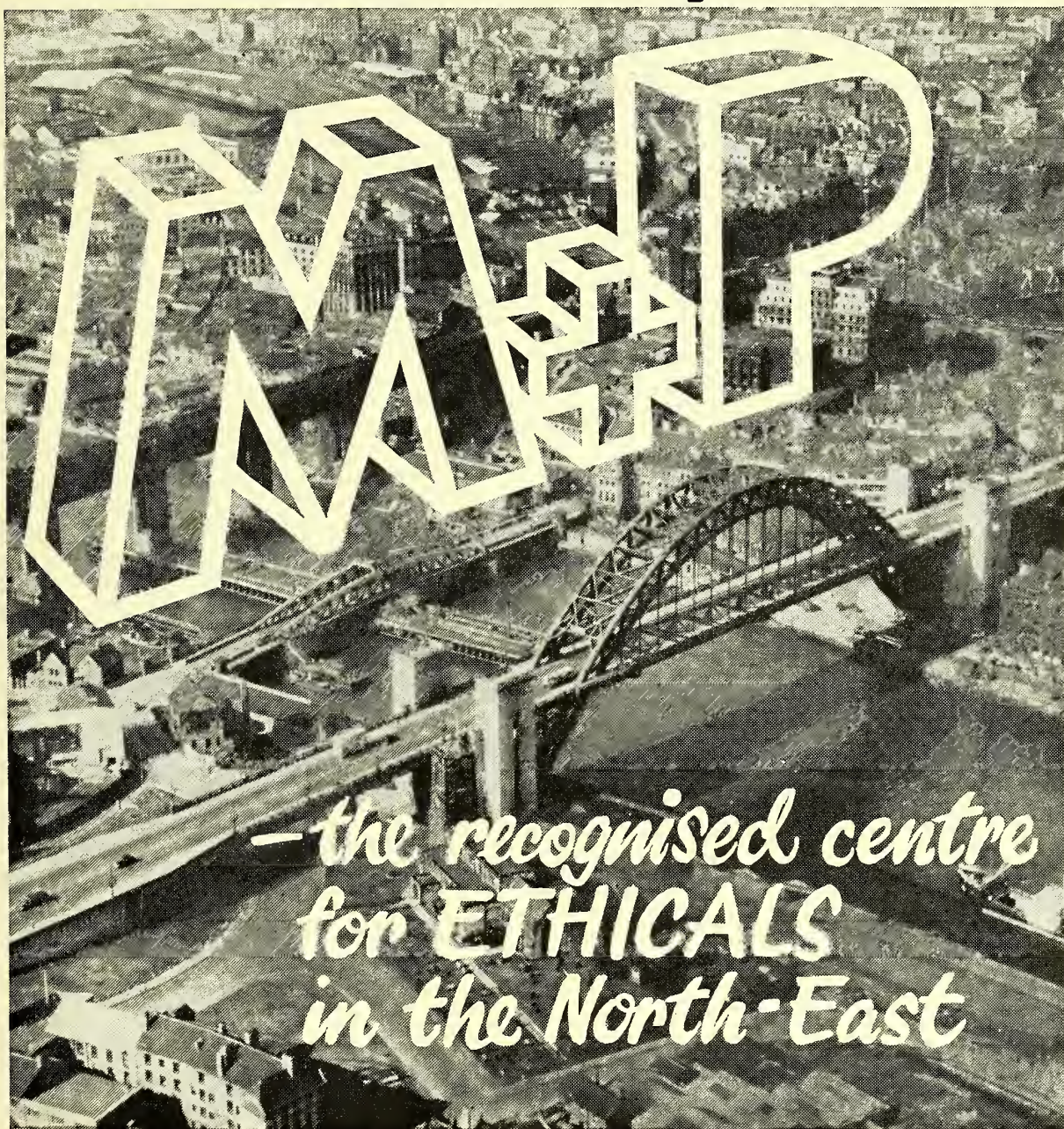
ROCHE

Literature available from

ROCHE PRODUCTS LIMITED,

15 MANCHESTER SQUARE, LONDON, W.1

for all chemists' specialities



*—the recognised centre
for ETHICALS
in the North-East*

the SERVICE with a 'PLUS'

**MAWSON & PROCTOR
PHARMACEUTICALS LIMITED**

Low Friar Lane, Newcastle-on-Tyne 1

Telephone 29751 (9 lines)

Fighting "MANAGEMENT FATIGUE" means BUSINESS

There will be many among your customers, holding responsible positions in all walks of life, whose lives are overshadowed by the lowered state of mind and body now known as "management fatigue". This, the legacy of tension, overwork, snatched and ill-balanced meals, is a major problem of today. But just as 20th-century conditions combine to create it, 20th-century science has evolved, in OKASA, the means to solve this problem.

As befits a modern tonic, specifically designed for busy people, OKASA is prepared in tablet form. Its ingredients

are most carefully combined to provide a comprehensive treatment—to strengthen not merely a part, but the whole of the human constitution. By virtue of its new composition, OKASA also qualifies as a geriatric product of the highest order. To people seeking vigorous enjoyment of their later years, as well as to people of all ages living under pressure, OKASA will be of vital and immediate interest. *Possessing such outstanding tonic properties, OKASA is inevitably expensive. Your customers have only to try it and experience its unique effectiveness, to understand why.*

OKASA the 20th-Century Tonic

STANDARD SIZE (100 TABLETS) 24/6
(To the Chemist 16/4)

TRIAL SIZE (50 TABLETS) 14/9
(To the Chemist 9/10)

OKASA is prepared by Hormo-Pharma Ltd. London, and is obtainable from your Wholesaler, or from the Wholesale Department of

ROBERTS CHEMISTS (Bond St.), LTD.
76 New Bond St., London, W.1. Tel: MAY 4173



No Worry over Winter...

Not with Radio-Malt. Children enjoy taking this vitamin supplement and three generations of mothers have relied upon it to build up resistance of their children against winter ailments. Order your stocks now on the special bonus terms.

Winter bonus terms for **'RADIO-MALT'**

TRADE RETAIL		Trade Mark
1 lb. jars 2/5½	3/6	{ 1 lb. on orders for 24 lb. assorted
2 lb. jars 4/4	6/3	{ 2 lb. on orders for 36 lb. assorted 6 lb. on orders for 72 lb. assorted



THE BRITISH DRUG HOUSES LTD. LONDON N1

Recommend Brown-Glo

to your customers who are going grey



-it will be a big profit earner for you!

BROWN-GLO is bringing about a revolution in the hair colouring field because it's the first absolutely harmless and semi-permanent way of bringing back natural colour to greying hair. Women love BROWN-GLO because there's nothing drastic about it, because if no further application is made the effects gradually fade with

normal shampooing and the hair resumes its natural appearance. Powerful national advertising is reaching the thirteen million women over 30 in this country, telling them these facts about BROWN-GLO. Catch their eye with the attractive packs and full colour showcards and you'll gain new —and continuing—business.

Trade price 31/- per doz.
plus 50% tax
Retail at 5/2 per tube

*Brown-Glo is available
in six natural shades*

DARK BROWN
DARK WARM BROWN
MID BROWN
MID WARM BROWN
LIGHT BROWN
LIGHT GOLDEN BROWN

•
Recommend the shade
nearest to your customer's
own natural hair colour

Brown-Glo

HARMLESS
SEMI-PERMANENT
COLOURING

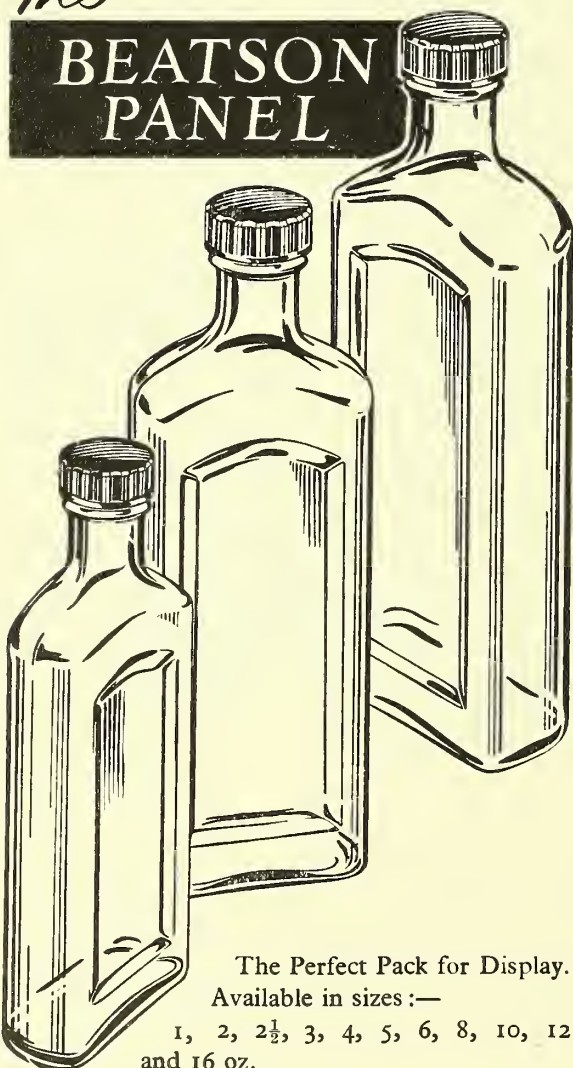
(Sister product of Color-Glo)

Colours Greying Hair to a natural shade of Brown A creation of  L'OREAL · PARIS

Manufactured and distributed by: **GOLDEN LIMITED**, 7 Grosvenor Street, London W.1. Hyde Park 1671
Republic of Ireland enquiries to: **Lilmar Pharmaceuticals Limited**, Santry, Dublin

Now available in
AMBER
1, 2, 3, 4, 6, 8 and 16 oz.

The
**BEATSON
PANEL**



The Perfect Pack for Display.
Available in sizes:—
1, 2, 2½, 3, 4, 5, 6, 8, 10, 12
and 16 oz.

Caps: Black, Red or White Plastic
or White Enamelled Tinplate.

BEATSON, CLARK & CO. LTD.
GLASS BOTTLE MANUFACTURERS
ROTHERHAM Established 1751 **YORKSHIRE**

BC 99 (R)

A Beautiful Gift

HANSON

Quality Scales Since 1888
Made in U.S.A.



Exclusive equaliser
bar mechanism
enables this scale
to weigh accurately
on carpeted or
uneven floors in
bedrooms or bath-
rooms. Oversize
dial you can
see and be sure.

Can be hung
on the wall

75/6 Inc. Tax.
Other models from
56/9 Inc. Tax.

Obtainable from Selected Wholesalers or:—

LEONARD McEWEN LTD

28-36 ORSMAN ROAD, KINGSLAND ROAD, LONDON, N.1. Tel.: SH0reditch 7754

**Bulk Suppliers of
DISINFECTANTS
& ANTISEPTICS**

CARBOLIC DISINFECTANTS
Black & White types—all strengths

MARKET & FARM DISINFECTANTS
Approved for use under Diseases of Animals Orders

PINE & AROMATIC DISINFECTANTS
LYSOL B.P.

QUATERNARY AMMONIUM COMPOUNDS
ROXENOL B.P., etc.

Packed in 1, 5, 10 and 40 gallon drums

PRINTAR INDUSTRIES LTD.**BRETENHAM HOUSE, LANCASTER PLACE,
STRAND, LONDON, W.C.2.**

Telephone: TEMPLE BAR 5801 (8 lines)

Works:- PRINCE REGENT'S WHARF, SILVERTOWN, LONDON, E.16

Telephone: ALBERT DOCK 3311

PREPARATION FOR BEAUTY

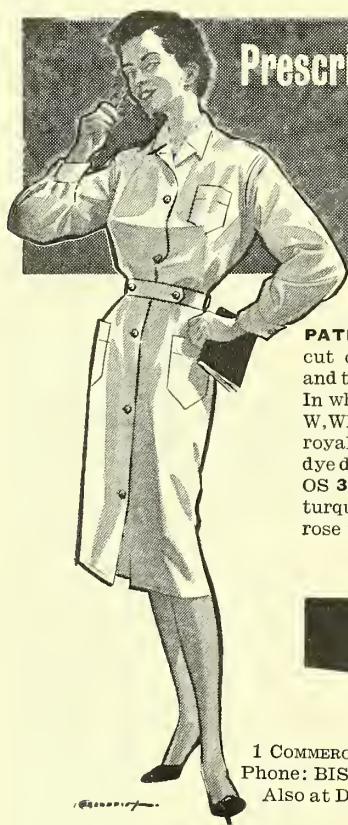


Alright, you stock a wide range of cosmetics and beauty products. They're well displayed. Brightly lit. But are they **correctly** lit? The right Osram fluorescent tube can bring out the best in your cosmetics. There's one that shows off their subtle reds and pinks—Osram "Deluxe Natural". Coated with specially blended phosphors it gives a light that is colour correct, restful and kind. Your customers and staff will thank you for fitting Osram.

Osram have the right
fluorescent tube

Ask your supplier to make sure you get it!

The General Electric Co Ltd, Osram Lamp Division



Prescribed for good looks and long wear

GARDINER'S

professional overalls

PATRICIA Simple, straight-cut overall with long sleeves and three useful patch pockets. In white satin drill, SW 26/6, W, WX 28/11, OS 31/6. In green, royal, grey, pink or beige fast-dye drill, SW 30/6, W, WX 32/6, OS 35/6. In white, pink, wine, turquoise, salvia blue or prim-rose nylon, 45/-. Sizes SW-OS.

WESTMINSTER Generously cut, well-finished coat, with tailored shoulders and seam back with vent. Two side pockets, one breast pocket with pen division. Side vents to trouser-pockets, vent cuffs. Detachable buttons. In sizes 34"-48" chest—white satin drill 31/6, heavy khaki drill 32/6, grey denim 32/6. In sizes 34"-46" chest—white nylon 64/6.



GARDINER'S

THE OVERALL SPECIALISTS

1 COMMERCIAL ROAD, LONDON, E.1. (opposite Aldgate East Tube Station)
Phone: BISHopgate 6751/3. Open all day Saturday. Closed 1 p.m. Thursday.
Also at Deptford House, Deptford Broadway, S.E.8. Tel: TIDeway 1148
Post orders receive prompt attention.

For more than 100 years

CAMTHOL

has been recommended
for COUGHS & COLDS

CAMTHOL LINCTUS

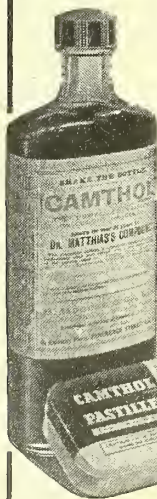
The Cough mixture for Adults

CAMTHOL PASTILLES

In tins suitable for pocket and handbag

CAMTHOL VAPOUR RUB

Incorporating the finest Essential Oils



BONUS—Thirteen to the dozen on all orders

	Retail	per doz.
CAMTHOL LINCTUS	3/- per bott. inc. P.T.	Cost 27/6
CAMTHOL PASTILLES	1/9 per tin inc. P.T.	Cost 14/11 1/2
CAMTHOL VAPOUR RUB	1/9 per jar inc. P.T.	Cost 14/11 1/2

B. HOOPER & CO. LTD.

6 RAILWAY PLACE, FENCHURCH STREET,
LONDON, E.C.3

DIAMOND ENCRUSTED—
RUSTLESS, EVERLASTING

Diamond Deb
NAIL DRESSER

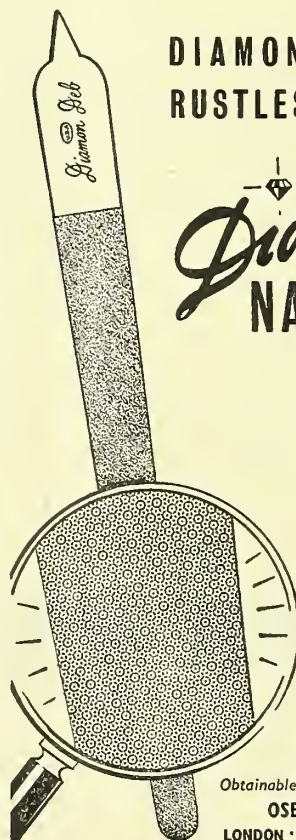
Diamond and Sapphire crystals permanently embedded in pure Nickel make the finest manicure files in the world. Not affected by soaps, solvents, boiling liquids, or mild acids.

prevents

**NAIL SPLITTING
& NAIL PEELING**

Gem encrusted surface files so cleanly and smoothly that the nail layers cannot split and cause nail peeling.

4 in. 12/6 6 in. 15/- 8 in. 17/6

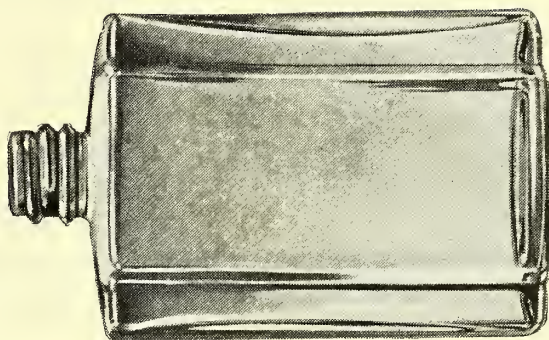


Obtainable from:

OSBORNE-GARRETT & CO. LTD.

LONDON • BIRMINGHAM • GLASGOW • MANCHESTER

High Quality Glassware



THE INTERNATIONAL BOTTLE CO., LTD.

140 PARK LANE LONDON W.1

Telephone MAYfair 6992 (5 lines) Telegrams AUTREFOIS, AUDLEY, LONDON



Designers and Manufacturers of





there's good business for you
with **Zoflora**
floral DISINFECTANT



YOU ARE SUPPORTED TO THE UTMOST—



BY a lively sustained
National Advertising
Campaign in womens
magazines,
Reader's Digest
and National
Sunday Newspapers



BY a first class
well-known and well
presented product
that brings regular
repeat sales

AEROSOL 3/9 ZOFLORA 2/6

Free display material
available on request



THORNTON AND ROSS LTD · HUDDERSFIELD

Of proved efficiency against infection

The Antipeol products incorporate the
broth filtrates of the microbes common
to most cutaneous, naso-pharyngeal and
ocular complaints.



Among the MEDICAL AND NURSING PROFESSION
and THE FIRST AID ASSOCIATIONS, the
ANTIPEOL preparations enjoy a continued and
growing popularity. They are highly regarded as
simple but effective remedies against even the more
virulent forms of skin, nose and eye infections.

ANTIPEOL

CUTANEOUS OINTMENT

For the immediate treatment of Burns and
Scalds. For Boils to avert surgical inter-
vention. Also for ABSCESSSES, ECZEMA,
CARBUNCLES, VARICOSE ULCERS, HAEMORR-
HOIDS, and certain types of DERMATITIS.

RHINO-ANTIPEOL

PROPHYLACTIC NASAL CREAM

For ASTHMA, BRONCHITIS, CATARRH, CORYZA,
RHINITIS and many other infections of the
naso-pharynx.

OPHTHALMO-ANTIPEOL

THERAPEUTIC OPHTHALMIC OINTMENT

For BLEPHARITIS, CONJUNCTIVITIS, DACRIO-
CYSTITIS, KERATITIS and other inflam-
matory conditions of the eye.

MEDICO-BIOLOGICAL LABORATORIES LTD. London, S.E.25

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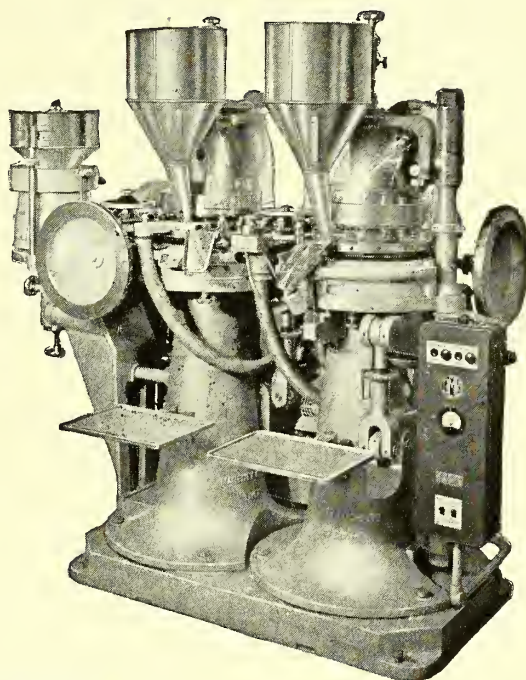
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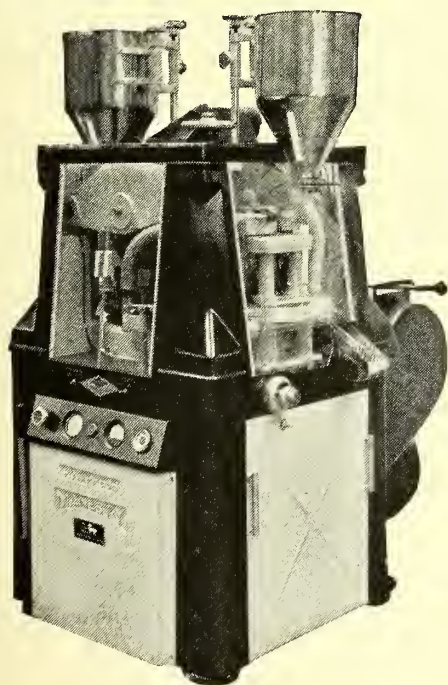
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TABLET MACHINES—MIXERS—GRANULATORS—COMMINUTORS—COATING PANS—AUTOMATIC WATER STILLs

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at 55s. net.*



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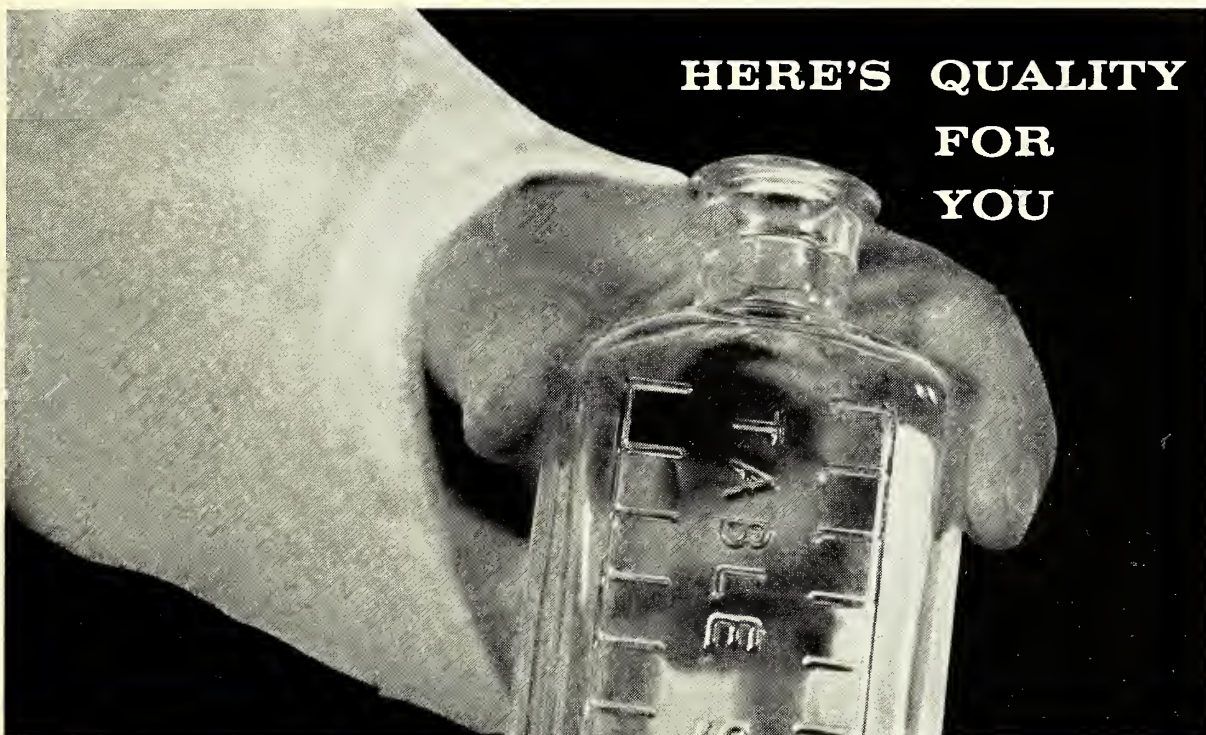
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Extensive Network TV! Every week hard-selling Remington commercials will be seen by over 34½ million viewers. They'll see the outstanding advantages of the Remington Shave—the shave that's closer, stays smoother longer.

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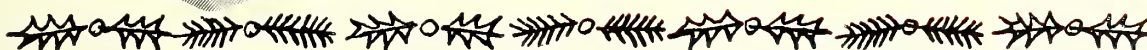
Free Display Material! Attractive display pieces are available to you free. You can link up your display with the advertising campaign and clinch the sale. Write for details, to:—Sales Promotion Department, Remington Electric Shaver Ltd., 26-40 Kensington High Street, London W.8.

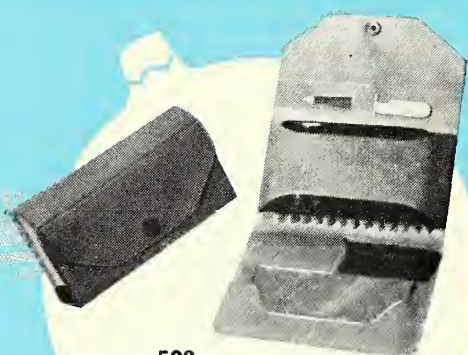


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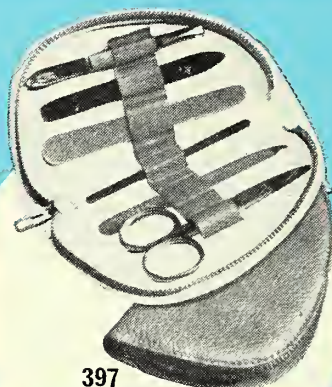
The Remington Shave is the world's finest shave. Every man who cares about his appearance wants it for Christmas. That means many, many gift buyers will be out to buy a Remington. Make sure they buy them from you!

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Man's fitted fold-over travel case. Top value at 8/6d.

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6-Piece Manicure set in zip case a Big seller at 7/11d.

BARNET have a gift...

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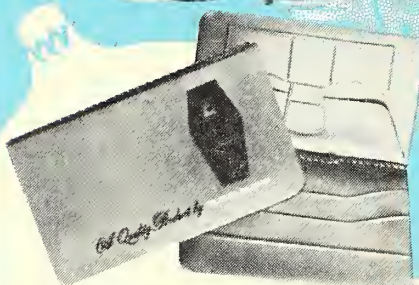
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A28

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A32

"JULIETTE" 3 piece set with elegant inserts in packs at 15/11d.

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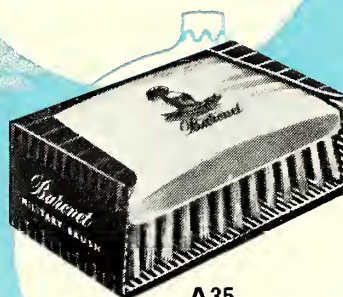
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"COLETTE" 2 piece in crystal colours at 5/11d.



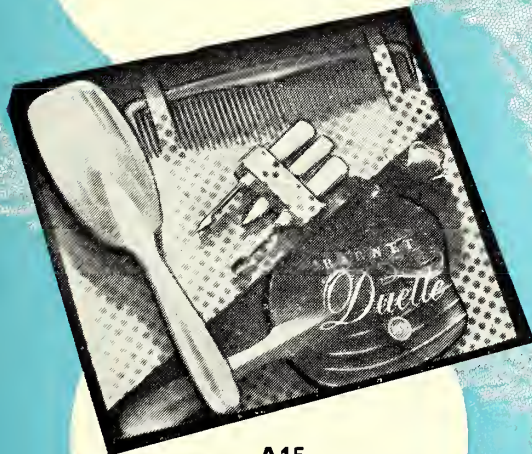
A29

"ANNETTE" decorated classic two-piece set at 8/11d.



A35

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A15

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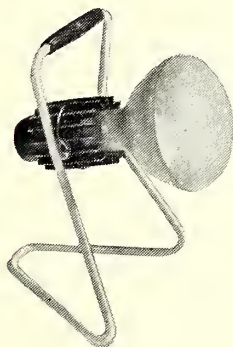
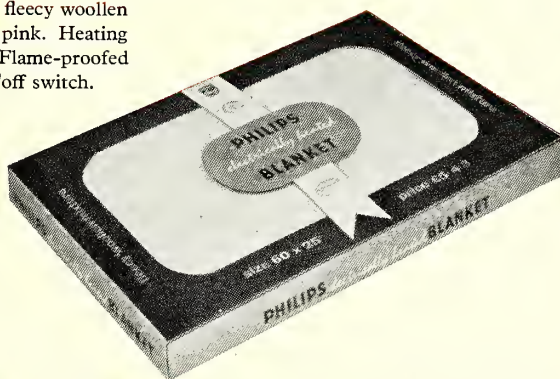
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From all over the country repeat orders are coming in for Gualime, latest in the Pascall-Knight range of pure fruit juice drinks.

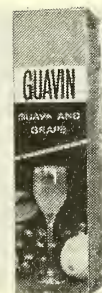
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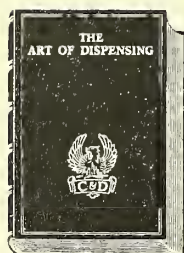
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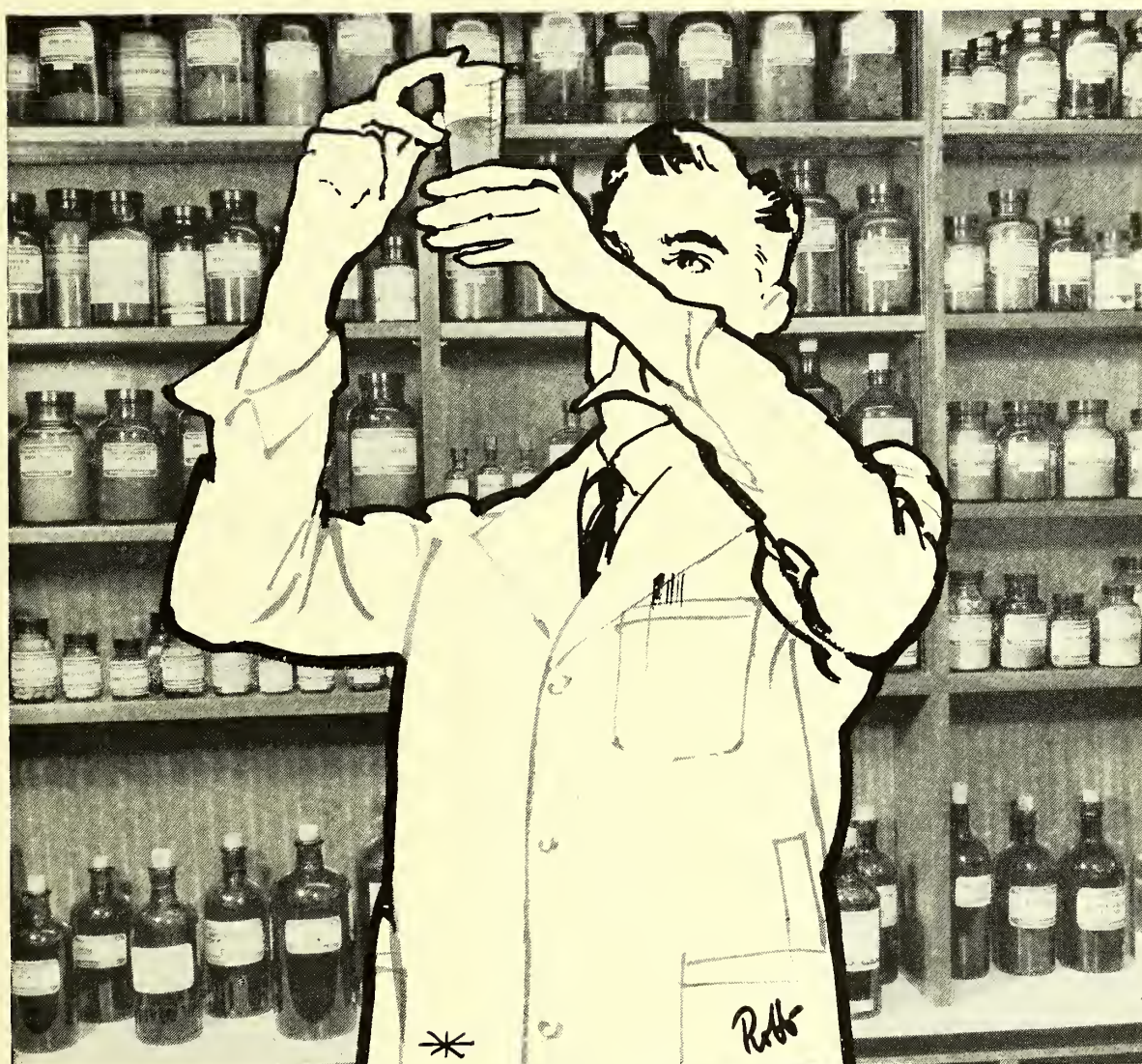
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Wimbledon, London, S.W.19

Correspondence should be marked
"CONFIDENTIAL." C 5932

PRICING CLERK REQUIRED. Preference given to applicant used to pricing invoices for wholesale chemists' trade, or has good knowledge of retail chemists' trade and willing to learn pricing work. Permanent position. Apply in writing stating age and experience to Secretary, Allied Drug & Chemical Co., 1 Robert Street, Hampstead Road, N.W.1. C 3195



ALLEN & HANBURYS

are looking for a qualified man (preferably a Fellow or Member of the Pharmaceutical Society or Science Graduate) for their sales staff. The man they choose will be appointed

REPRESENTATIVE

in the Birmingham area, where he will be calling on Doctors and Hospital Consultants.

The salary will be commensurate with the qualifications of the successful applicant who will be a man with energy and enthusiasm. The post is progressive. He will be given an intensive course of training. A car will be provided and there is a generous contributory pension scheme.

Apply in writing giving full details of age, education, qualification, and experience to:—

Reference RB, Personnel Manager,

ALLEN & HANBURYS LTD.,

Bethnal Green, London E.2

C 5890

Situations Vacant—Continued

REPRESENTATIVES required by nationally well known toilet cosmetic company, for central and north London territory. Excellent trading accounts will be handed over. First-class men only need apply. Good commencing salary, commission and expenses provided. Car owners preferred. Box C 5901.

YOUNG pharmacist or graduate in chemistry (general) with some knowledge of pharmaceutical industry required to assist in the control of quality, production and development of pharmaceutical products. Enthusiasm, initiative and sense of responsibility more valuable than actual experience. Five-day week (approx. 37 hours). Salary £800—£1,000 p.a. Send fullest details of age, education, etc., etc., to A.Y.D., Willows Francis, Ltd., 73/75 Shacklewell Lane, Dalston, London, E.8. C 5922

Situations Vacant—Continued

REPRESENTATIVES, already calling upon Chemists, required by old-established cork manufacturers, Commission basis. Box C 3191.

SHULTON (GREAT BRITAIN) LIMITED will require three top calibre representatives from January 1961 to promote sales of Old Spice for Men and the new Desert Flower fragrance range. Successful applicants will have considerable experience in representation to chemists and departmental stores and must be prepared to work with enthusiasm and determination. Residence in any of the following areas will be an advantage: Central or West Sussex, Hampshire, Hertfordshire, Bedfordshire, Cambridgeshire, South Yorkshire. Apply by letter to Sales Manager, Trevor House, 96 Brompton Road, London, S.W.3. C 5921

NEW ZEALAND SCHOOL OF PHARMACY SECOND YEAR STAFF

Applications are invited for teachers of the following subjects:

Pharmaceutics

Pharmaceutical chemistry

Pharmacognosy

Pharmacology

Applicants should possess a degree or registrable qualification in pharmacy. A post-graduate qualification, teaching or research experience would be an additional advantage.

The New Zealand School of Pharmacy opened in February 1960 at the Central Technical College, Petone (Wellington), and provides a two-year full time course with 75 students in each year. The subjects covered in the first year are Chemistry, Physics and Biology, and the second year of professional studies will start in 1961.

Salary—Senior Tutor £1,380 × £50 to £1,530
Tutor £1,180 × £50 to £1,380
Assistant Tutor £880 × £50 to £1,180

These salary scales which are at present under review apply to both male and female staff. Appointments may be made in the grade of Senior Tutor, Tutor, or Assistant Tutor, and at any point in the scale. Appointees will be expected to take up their duties in February 1961.

Steamer fares and allowances on New Zealand Public Service scale will be paid to successful applicants. Further details and application forms may be obtained from the Deputy High Commissioner for New Zealand, 415 Strand, London, W.C.2. Applications will close on 29th October, 1960.

C 5889

ROCHE

THE CHANCE OF A STEADY CAREER

Opportunities are offered to outstanding young men with drive and initiative wishing to start as medical representatives. A pharmaceutical qualification/experience or equivalent academic attainment essential. Vacancies occur in:—

1. London
2. Northumberland
3. West Wales

Good salary, exceptional pension scheme, full expenses; successful applicants are assisted to own their own cars. First-class candidates desiring success and security should apply with full details to the Secretary, Roche Products Limited, 15 Manchester Square, London W.1. Applications will be treated as confidential.

C 5866



BURROUGHS WELLCOME & Co.

invite applications from pharmacists for the following appointments—

1. **Medical Representative** in the London Area.
Age 25-30. Good pharmaceutical experience is essential but this need not include work in medical representation, as adequate training will be given.
2. **Sales Executive.** This is an opportunity for a pharmacist in his early twenties to acquire basic training in sales promotion and administration. He should, in due course, be prepared to broaden his experience by working as a Medical Representative.

Applications should be sent to—

**The Personnel Manager,
THE WELLCOME FOUNDATION LTD.,
The Wellcome Building,
Euston Road, London, N.W.1**

C 5923

CHESHIRE · SHROPSHIRE STAFFORDSHIRE · NORTH WALES

An opportunity presents itself for a first class representative to take over an existing connection with chemists (retail and wholesale) in the above counties.

The successful applicant will require to have a sound pharmaceutical background to enable him to discuss with pharmacists the wide range of pharmaceutical preparations, specialities, aids to dispensing, and drugs and galenicals which are offered. Also it is desirable that he should be already resident on the territory.

The ability to drive a car is essential, as the company provides and maintains a car to assist in the work.

Remuneration is by basic salary together with commission, also the repayment of normal out of pocket expenses. A contributory Superannuation and Life Assurance scheme is in operation.

Applications should give full details of education, experience, and personal details and should indicate the ground at present covered.

THORNTON & ROSS, LTD.
Linthwaite Laboratories, Huddersfield

C 5926

ADVERTISING AND MAILING

Prominent U.S. pharmaceutical company requires executive to establish and run U.K. Ethical sales organisation, selling initially solely by advertising and mailing to the medical profession. Candidates must have general Ethical experience with a flair for and experience in this type of promotion. A pharmaceutical or similar qualification is desirable but not essential. The U.K. company has no Ethical staff at present; other employees have been informed.

Ethical Pharmaceutical Manager

The position should suit an Ethical Advertising Manager or Account Executive with broad knowledge of Ethical sales, an Ethical Sales Manager with creative advertising ability and experience, or a man showing promise in these fields.

*Probable age 30 to 40. Generous Salary, etc.
Reply in strict confidence to Box C.5924*

Branch Manager

We are looking for a suitable person to act as Branch Manager of our associated company, J. C. Arnfield, Stockport, who are shortly moving into larger premises.

The successful applicant should possess the following qualities: good personality, man management, initiative and a thorough knowledge of the pharmaceutical wholesale trade is essential. He might also be a Pharmacist but experience of distributive techniques as applied to wholesale Pharmacy is more important.

Salary will be rated to the job and made attractive to the right man.

Applications giving details of age, marital status, previous employers, in confidence to :

The Managing Director
JAMES WOOLLEY, SONS & CO. LTD.
P.O. Box 279, Manchester 3

C 5930

EXPERIENCED STOCKTAKERS

LEWIS & BURROWS LIMITED

(THE MULTIPLE DISPENSING
CHEMISTS)

Have vacancies for experienced stocktakers to lead a team responsible for the Company's internal audit stocktaking. Applicants should have considerable knowledge of pharmaceutical, drug and cosmetic stock and should be willing to work over weekends, taking their rest days during the week. Well above average salaries will be paid. Two weeks paid holiday per year. Candidates will be eligible for the Company's pension scheme.

Details in confidence, should be sent to :

Personnel Director,
Lewis & Burrows Ltd., 146 Holborn, E.C.1

C 5929

Situations Vacant—Continued

SKILLED experienced man required by manufacturing chemists to take charge of small poison room and poison records, also to assist with other drug work, York is a pleasant city. Good wages, friendly management, 42-hour week (alternate 5-5½ days). Box C 5903.

REPRESENTATIVE or agent required calling on chemists, laboratories, hospitals, etc., to introduce new produce for cleaning surgical instruments, etc. Write full particulars to Box C 5917.

PARKE, DAVIS & COMPANY

invite applications for the post of

**ASSISTANT TO THE
PRODUCTION PLANNING
MANAGER**

Candidates should have some knowledge or experience of production scheduling for batch production and experience of modern stock control systems.

Preference will be given to those with experience in the Pharmaceutical or Fine Chemical Industry.

Age 25/35 years. Five-day week. Generous pension and life assurance plan.

Please apply in confidence to:

Personnel Manager,
Parke, Davis & Company,
Staines Road,
Hounslow, Middlesex.

C 5909

AGENTS WANTED

FIRST-CLASS AGENTS required for the following areas: Wales and Midlands by progressive cosmetic company with fast-selling popular lines on the national market. Good retail connection an advantage. Generous commission on both retail and wholesale trading. Reply immediately with full details. Box C 5902.

**SITUATIONS WANTED
WHOLESALE**

EXCELLENT references supervisor, 30 years' service with several well known firms, experienced compounding essential oils, and manufacture of all types of perfumes, toilet and cosmetic preparations, seeks suitable position London area. Box C 3198.

EXPERIENCED veterinary representative, seeks position in Ireland, calling on veterinary chemists. Box C 3206.

Situations Wanted—Continued

SALES REPRESENTATIVE (29) requires sales challenging appointment. Good sales record proveable. Excellent connections, Kent, Surrey and Sussex, also South and Central London. Car owner. Domiciled South London. Can be mobile. Box C 3124.

WANTED

SEMI-AUTOMATIC film wrapping machine for small cartons. Hand-operated table model. Details and price to Vernon Laboratories, Ltd., Station Road, Haslemere, Surrey. C 3211

SURPLUS CAMERAS, ENLARGERS, CINE CAMERAS & PROJECTORS, PHOTOGRAPHIC EQUIPMENT OF EVERY DESCRIPTION, SURPLUS AND OUTDATED FILM & PAPER. Phone, write or call:—

SPEARS

(Dept. D.), Watling Street, Shudehill, Manchester.

Phone: Blackfriars 9432 (5 lines)

Bankers: Midland Bank, Ltd.

C 438

Wanted—Continued

WANTED: 1 oz., 2 oz. and 4 oz. squat opal jars. Small tablet tins, hinged or lever lids. Small 4 oz. cotton bags, string tied. Small cardboard boxes. Box C 3210.

WE WILL PURCHASE for cash a complete stock, a redundant line, including finished or partly finished goods, packing raw materials, etc. No quantity too large. Our representative will call anywhere. Write or telephone:—Lawrence Edwards & Co., Ltd., 6/7 Wellington Close, Ledbury Road, London, W.11. Tel.: Bayswater 4020 and 7692. C 140

AGENCIES WANTED

GENTLEMAN, 38, own car, wide experience selling pharmaceutical products, calling on doctors, hospitals, chemists, throughout Eire. Real live wire; will undertake representation of reputable pharmaceutical company. Record sales assured. Box C 3208.

STOCKTAKING

QUIET AND ACCURATE workmanship. Over 30 years' practical experience. Detailed inventories supplied to suit your individual requirements. Your own stock sheets priced. Terms moderate. C. W. Playfoot, 8 Aylward Road, London, S.W.20. Phone: Liberty 4104. C 520

MISCELLANEOUS SALES

CASH REGISTERS FOR SALE. New and second-hand, electrically or hand-operated. Different models. Part exchange and easy terms. Write Box C 547.

WALL FIXTURES, showcases and counter for sale cheap. View any time. Smith & Co. (Stroud), Ltd., 54 High Street, Stroud, Glos. (Phone: Stroud 79). C 3209

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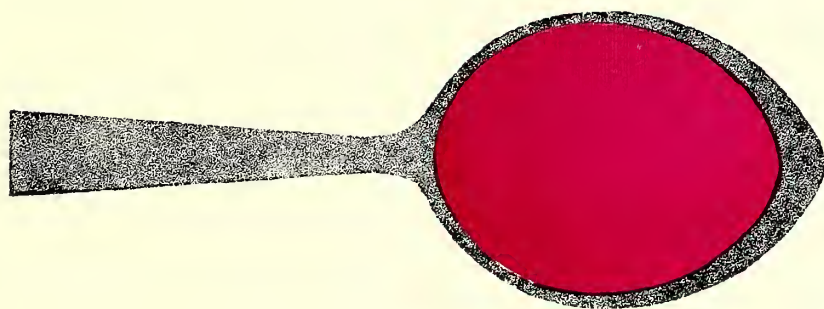
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Villescon is now available as a liquid—the dosage form a recent survey shows to be most acceptable to patients *and* doctors. †Clinical trials have repeatedly demonstrated Villescon's ability to effect improvement in appetite, breathing, and outlook for every type of run-down condition.

†A survey of 600 general practitioners carried out by The Boehringer Products Division of Pfizer Ltd.

Sixty per cent of tonic prescribers in the survey stated that they would prefer Villescon were it in liquid form.

Villescon Liquid is therefore a highly effective tonic in the most acceptable tonic form. Ensure that you have sufficient supplies to meet the demand which can confidently be expected.

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